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ABSTRACT

This report summarizes the mathematical and pedagogical content of the SQUARE ONE TV library after four seasons of production, relating that content to the series' three goals: (1) to promote positive attitudes toward, and enthusiasm for, mathematics; (2) to encourage the use and application of problem-solving processes; and (3) to present sound mathematical content in an interesting, accessible, and meaningful manner. Written as an update of the reports for Seasons I-III, the content analysis identifies the number and format of program segments appearing over the four seasons. The 195 programs of the library comprise 1,167 segments (counting repeated segments), that comprise the given percentages in the following format categories: Studio Sketch (30%); Animation (23%); "Mathnet" Episode (17%); Song (12%); Game show (10%); and Live Action Film (8%). Continued analysis indicates the percentage of segments that satisfy the expressed goals of the program. Appendix A provides a complete statement of the program's goals. Appendix B lists the 195 shows and indicates major and minor emphases for each program. Appendix C describes further details of analysis of segments involving goals 2 and 3. Appendix D provides a list of the Season IV programs that includes program title, format, running time, content, and goal classification. (MDH)

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SQUARE ONE TV

CONTENT ANALYSIS AND SHOW RUNDOWNS

THROUGH SEASON FOUR

September 30, 1991

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EXECUTIVE SUMMARY

This report summarizes the mathematical and pedagogical content of the SQUARE ONE TV library after four seasons of production, relating that content to the three goals of the series. It also provides a rundown of the shows, with a complete specification of each segment's show number, content, description, format, length, and other information.

The goals of the series are these:

I. to promote positive attitudes toward, and enthusiasm for, mathematics;

II. to encourage the use and application of problem-solving processes; and

III. to present sound mathematical content in an interesting, accessible, and meaningful manner.

The report includes a detailed elaboration of the goals.

Goal I. 81% of the segments of the series address Goal I by explicitly showing mathematics to be a powerful and widely applicable tool; or an aesthetically pleasing subject; or by showing that it can be understood, used, and even invented, by non-specialists.

Goal II. Of the 703 problem-solving segments that appear in the course of the 195 shows, almost all address Goal II by explicitly illustrating the formulation or treatment of problems. Moreover, 83% model the use of at least one problem-solving heuristic, and 44% incorporate the important stage of problem follow-up (by looking for alternative solutions or extending to related problems, for example).

Goal III. 92% of the segments address Goal III by incorporating one or more of the series' seven mathematical areas (numbers and counting; arithmetic of rational numbers; measurement; numerical functions and relations; combinatorics; statistics and probability; and geometry). 64% involve more than one mathematical topic, thus reinforcing interrelations among mathematical concepts.

SQUARE ONE TV

CONTENT ANALYSIS AND SHOW RUNDOWNS THROUGH SEASON FOUR

SQUARE ONE TV is a library of programs with the potential for a long and useful broadcast life. After each production round, we have analyzed every segment of the series in terms of our three goals. The results of our analysis reside in our comprehensive computer database. Aside from the obvious usefulness of this information as a guide for our continuing production efforts[1], the data have been helpful in several other ways. For example:

- The CTW School Services Department produces teachers' guides and program guides that include rundowns of the shows with an index to the series' goals.
- Our detailed knowledge of the relations of the segments to goals[2] has been useful in the design of our in-house summative research program, as well as the several externally-funded research programs that employ elements of the series.
- One can easily compare the content of SQUARE ONE TV with other resources in mathematics education--for example,

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1. Appendix C includes cross-seasonal data for each of the three goals.

2. Documentation of our method of coding is available in: McNeal, B. & Singer, K. (1991). Square One TV Coding of Segments. New York: Children's Television Workshop.

scope-and-sequence charts of mathematics curricula and local district mathematics programs.

This report describes the content of the 195 programs of the SQUARE ONE TV library in terms of its elaborated goal statement (Appendix A). Charts and graphs show the cumulative treatment of objectives for the series' goals. Rundowns of the 40 programs of Season IV (Appendix D) include descriptions of each segment of each program. This report should be read as an update of the reports[3,4,5] on the production of Seasons I-III. In particular, those reports include complete rundowns of the 75, 40, and 40 programs of Seasons I-III, respectively, as well as details of their content.

SQUARE ONE TV GOALS

The series has three goals:

I. to promote positive attitudes toward, and enthusiasm for, mathematics;

II. to encourage the use and application of problem-solving processes; and

III. to present sound mathematical content in an interesting, accessible, and meaningful manner.

People respond to mathematical ideas if they see concepts linked to concrete situations, if the ideas appear beautiful and dynamic, or if they seem accessible to people with whom the

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3. Schneider, J., Aucoin, K., Schupack, L., Pierce, B., & Esty, E. (1987). Square One TV, Season One Content Analysis and Show Rundowns. New York: Children's Television Workshop.

4. Schneider, J., Miller, R., & Esty, E. (1988). Square One TV, Season Two Content Analysis and Show Rundowns. New York: Children's Television Workshop.

5. Schneider, J., Miller, R., McNeal, B., & Esty, E. (1990). Square One TV, Content Analysis and Show Rundowns through Season Three. New York: Children's Television Workshop.

viewer can identify. For Goal I, we reviewed each segment in terms of these three motivational criteria, recognizing only what is explicitly exhibited or expressed, not what the viewer may infer.

Goal II operates through segments that illustrate problem-solving behavior and problem-solving heuristics. For our purposes, we recognize three stages of problem-solving behavior: problem formulation, problem treatment, and problem follow-up. Of course, problem-solving is rarely linear or so simply described. Instead, a problem solver moves among the three types of behavior, applying a variety of heuristics. The coding sheet on page 3a illustrates the view of the problem-solving components that guides our analysis for Goal II. For this purpose, we analyzed only the segments that explicitly exhibit one or more of the three stages of problem solving: formulation, treatment, and follow-up. We analyzed in detail their depiction of these problem-solving behaviors and their use of heuristics.

Goal III involves the presentation of a broad spectrum of mathematics. We aim to provide segments with mathematics that has clear ties to school curricula and also mathematics that would extend viewers' school experience. Our mathematical outline includes seven areas:

Numbers and Counting;
Arithmetic of Rational Numbers;
Measurement;
Numerical Functions and Relations;
Combinatorics and Counting Techniques;
Statistics and Probability; and
Geometry.

CONTENT ANALYSIS

GOAL I

1 Positive Attitudes and Enthusiasm:

__ A Powerful and Applicable Tool

__ B Beautiful Aesthetically Pleasing Subject

__ C Initiated, Developed, and Understood by Non-Specialist

OTHER ANALYSIS

__ Unanswered questions to viewer
__ Invitation to participate
__ Calculator use
__ Computer use
__ Mistakes made and corrected

GOAL III

___ . ___ . ___
___ . ___ . ___ Mathematics Content

PROBSOLV

NOT PROBSOLV

GOAL II

ACTION

A PROBLEM FORMULATION

__1 Recognize a problem, State a problem
__2 Assess value of solving
__3 Assess possibility of solving

B PROBLEM TREATMENT

__1 Recall information presented
__2 Estimate or approximate
__3 Make measurements, Gather data, Check resources
__4 Calculate, or Manipulate geometric (Mental or Physical)
__5 Consider probabilities
__6 Use trial and error, Guess and check

D PROBLEM FOLLOW-UP

__1 Discuss reasonableness of results (and precision of results)
__2 Look for alternative solutions
__3 Look for alternative ways to solve
__4 Look for, or extend to, related problems

HEURISTICS

C1 REPRESENT PROBLEM
__ a Scale model, drawing, map
__ b Picture, Diagram, gadget
__ c Table, Chart
__ d Graph
__ e Use objects, Act out

C2 TRANSFORM PROBLEM
__ a Reword, clarify
__ b Simplify
__ c Find subgoals, sub problems (work backwards)

C3 LOOK FOR
__a Patterns
__b Missing info
__c Distinctions in kinds of information pertinent, extraneous

C4 REAPPROACH PROBLEM
__ a Change point of view, Reevaluate assumptions
__ b Generate new hypotheses

Date _____ Prod _____

Coder _____ Title _____

Appendix A includes an outline of each area as we considered it in developing program material. By our use of this outline, we do not mean to establish or suggest boundaries between areas rather than reinforce commonality. In fact, most segments of the series deal with more than one area of mathematics. Moreover, we make no attempt to identify a primary topic. In many cases it would be difficult to distinguish primacy, and mathematical content is often a function of the viewer's experience and perceptions. For example, to a less sophisticated viewer, But Who's Counting? may appear as a game primarily involving numeration, while a more experienced viewer may concentrate on its probabilistic aspects.

THE SHOWS

In terms of mathematical organization, there are two types of shows: those with a particular mathematical emphasis and those based on a variety of mathematical topics. By definition, the former have a single topic that is the focus of segments comprising about one-third of that show. For example, Show 413, with an emphasis on estimation, includes a studio sketch, Mathcourt 8: Rounding Down; an animation, Division Of: Estimation; and a game show, Close Call.

The remaining shows present a mixture of mathematics. However, many have a mini-emphasis: two or more segments on the same topic, but running shorter than one-third of the show. For example, Show 411 includes three pieces dealing with probability: But Who's Counting?, a question from Square One Challenge, and

Division Of: Lottery. A list of the shows with their emphases, if any, appears in Appendix B.

ANALYSIS OF SEGMENTS

Fourth season production added 136 segments to the pool from which we assemble programs, bringing the total to 904 segments. Some segments appear more than once in the course of the 195 programs. For instance, many songs run two or three times each. Moreover, some segments appear in seasons after their production. The 195 programs of the library comprise 1167 segments, counting repeated segments. The six segment formats[6,7,8] occur with the following frequencies:

	Season I	Season II	Season III	Season IV	Library
Studio Sketch	221 (41%)	45 (19%)	48 (23%)	38 (21%)	352 (30%)
Animation	101 (19%)	82 (35%)	41 (20%)	44 (24%)	268 (23%)
Mathnet Episode	75 (14%)	40 (17%)	40 (19%)	40 (22%)	195 (17%)
Song	80 (15%)	27 (12%)	20 (10%)	16 (9%)	143 (12%)
Game Show	28 (5%)	32 (14%)	34 (16%)	26 (14%)	120 (10%)
Live Action Film	37 (7%)	8 (3%)	25 (12%)	19 (10%)	89 (8%)
Total	542	234	208	183	1167

The charts and graphs on the following pages relate the treatment of the goals across the segments. There are two game shows, Square One Squares and Square One Challenge, in which the game questions are independent and carry sufficient content to

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6. A seventh segment format, the bumper, is a short (typically less than 12 seconds) segue between segments of a show. Since few of the bumpers are codable to the goals, we exclude them from the statistics.

7. The careful reader who compares the Season I-III statistics here with those reported in the earlier analyses will note a few small discrepancies. They result from correcting occasional errors in recording the coding.

8. Sixty-eight segments have more than one part appearing together in a show, although separated by other segments. Multi-part segments are coded as a single segment.

warrant coding them individually. Thus the base for the coding consists of 1212 items[9].

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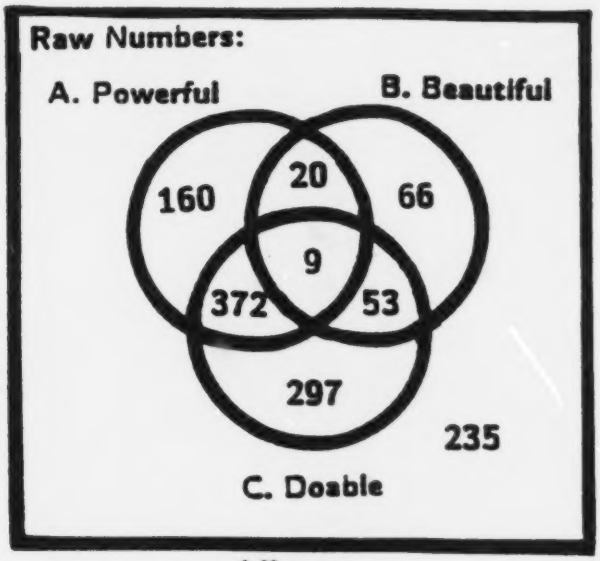
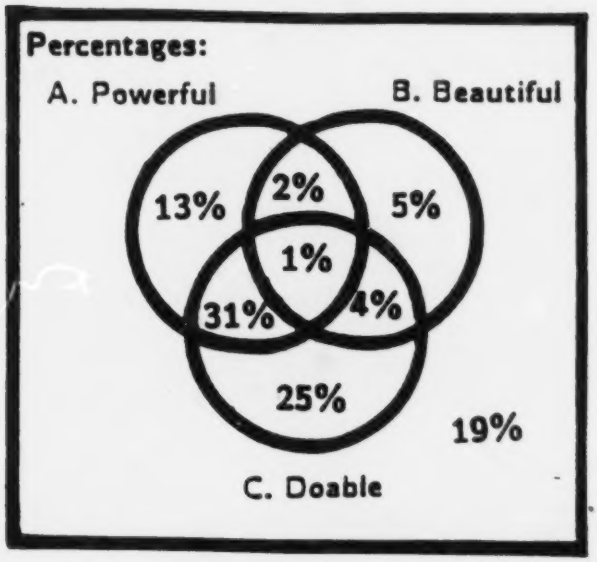
9. From the library's 1167 segments subtract 22 episodes of the two game shows and add 67 questions.

GOAL I TALLIES

Of the 1212 codable items, 977 (81%) satisfy one or more of the three criteria for Goal I. The Venn diagrams below show the distribution.



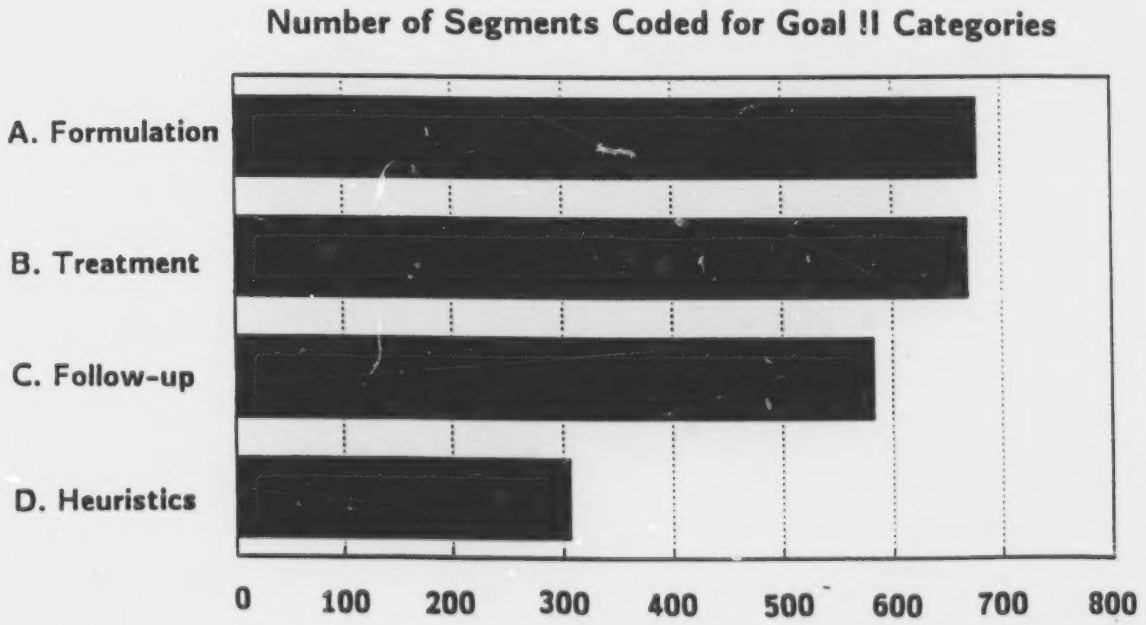
Library



Library

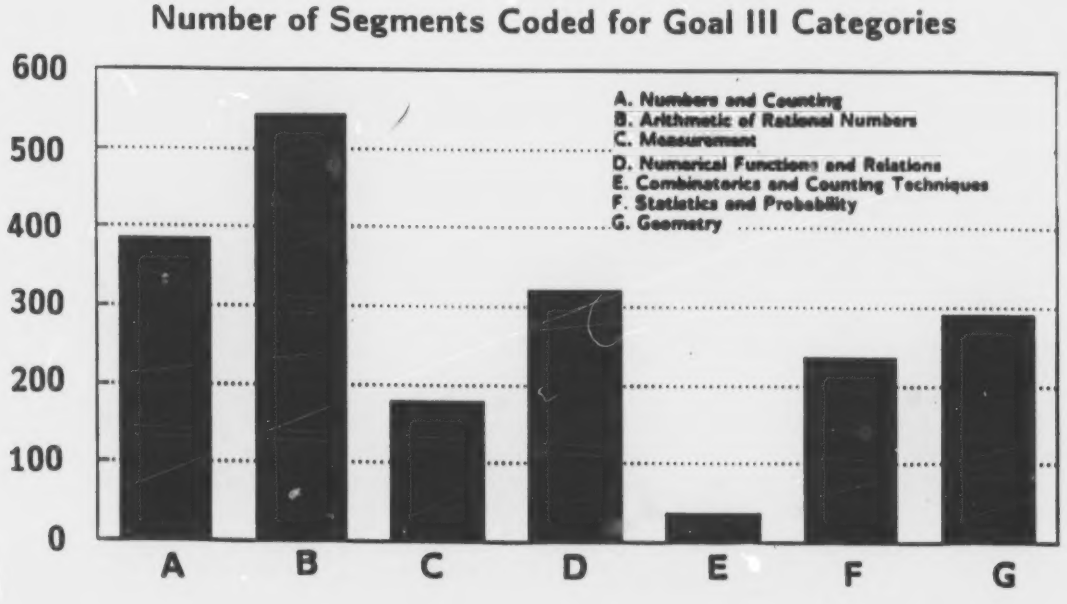
GOAL II TALLIES

Of the library's 1212 codable items, 703 (58%) explicitly exhibit at least one of the three stages of problem solving (recall that codable items include Square One Squares and Square One Challenge questions). The bar graph below shows the number of segments among these 703 that address each of the four objectives of Goal II. Note that many items meet more than one objective. See Appendix C for a finer tally of items according to the detailed treatment of problem solving in our elaborated goal statement (Appendix A) and for tallies across the four seasons.



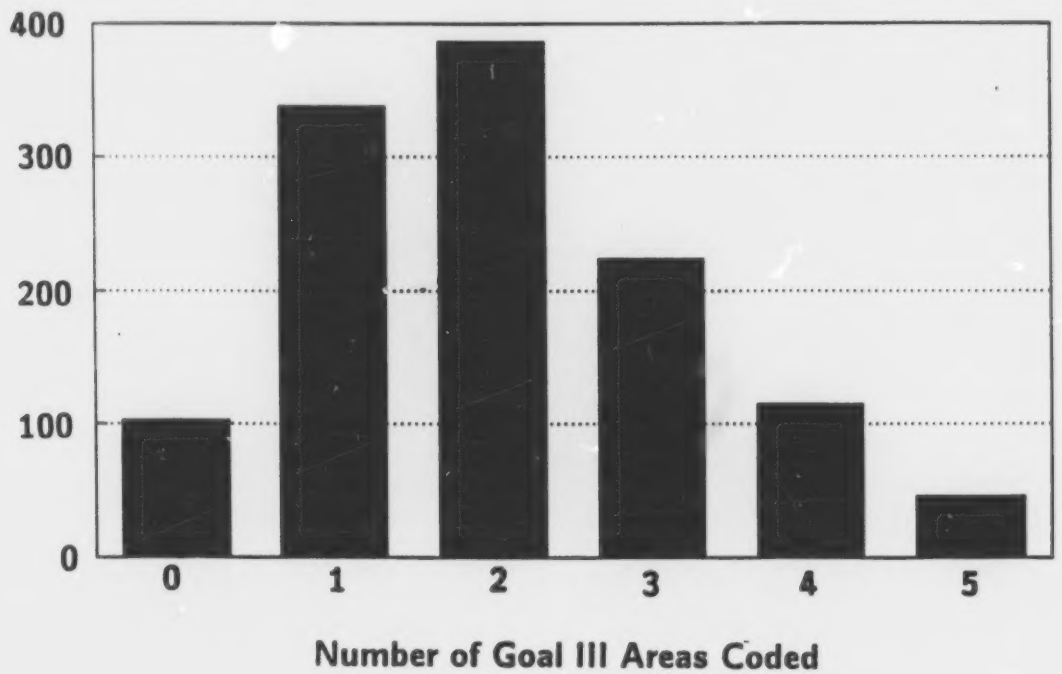
GOAL III TALLIES

The bar graph below shows the distribution of coding across the seven mathematical areas listed under Goal III. Since many of the codable items in the library involve more than one area of mathematics, the numbers add to more than 1212. See Appendix C for a finer tally of segments according to the detailed outline of the mathematical areas in our elaborated goal statement (Appendix A) and for tallies across the four seasons.



Mathematical Diversity.

Many items in the library incorporate more than one area of mathematics. The graph below shows the mathematical diversity of the 1212 items coded for Goal III by reporting the number of multiply-coded items according to the multiplicities. For example, 224 items involve mathematics of exactly three categories. Of the total, 772 (64%) involve two or more areas of mathematics. Appendix C contains data broken down according to each of the four seasons.



Distribution of Items Coded for More Than One Goal III Category

The matrix below is designed to show frequency of certain combinations of Goal III categories. For example, 182 of the 1212 codable items are coded for both IIIA (Numbers and Counting) and IIIB (Arithmetic of Rational Numbers).

Goal III Categories:

A. Numbers & Counting
B. Arithmetic of Rational Numbers
C. Measurement
D. Numerical Functions & Relations
E. Combinatorics & Counting Techniques
F. Statistics & Probability
G. Geometry

	A	B	C	D	E	F	G
A	-	182	21	135	3	117	18
B	-	-	59	185	15	91	77
C	-	-	-	21	2	18	66
D	-	-	-	-	2	87	32
E	-	-	-	-	-	12	5
F	-	-	-	-	-	-	25
G	-	-	-	-	-	-	-

TALLIES OF SEVERAL OTHER ATTRIBUTES

The table below shows the number of the 1212 codable items that exhibit any of several other attributes.

- While calculator or computer use are not a specific concern of the series, characters use them when it is natural and appropriate.

- We try to provoke the viewer to participate directly in doing some mathematics integral to a segment, such as playing along in a game show, or by later thinking about an unanswered question.

- Modeling appropriate behavior in the face of errors or mistakes is part of the design of the series. Therefore, we make note of segments in which a character makes a mistake and corrects it.

The five tallies are as follows.

Calculator use	43	4%
Computer use	71	6%
Invitation for direct viewer participation	199	16%
Unanswered questions	104	9%
Errors exhibited	236	19%

POTENTIAL FOR FURTHER ANALYSIS

We note that other analyses of the content and problem-solving data are possible, but not pursued in this report. In particular, no cross-seasonal comparisons have been made in this report, although seasonal data is included in Appendix C for the interested reader. We also have not analyzed relationships that may exist among the three goals as they are approached through the series. Some of these relationships are apparent simply from the structure of the objectives under each of the three goals. As an example, one would expect a high percentage of segments that are coded for the problem-solving treatment called "consider probabilities" (Goal IIB5) to have mathematical content that has been coded for probability (Goal IIIF), and in fact 87% of them do. Other connections among goals are not so apparent, however, and would require additional analysis. One might ask, for instance, which specific heuristics (sub-objectives of Goal IIC) are most frequently associated with the various content categories of Goal III. The data provided in Appendix D allow the interested reader to pursue similar questions.

Furthermore, no attempt has been made here to analyze how the goal content of the programs relates to what viewers gain from watching. This is a complex subject; it is discussed in detail in a report of a research study of the first two seasons of SQUARE ONE TV [10].

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10. Peel, T., Rockwell, A., Esty, E., & Gonzer, K. (1987). SQUARE ONE TV: The Comprehension and Problem-Solving Study, Final Report. New York: Children's Television Workshop.

Readers may be interested to know of a large scale evaluation of the effects of SQUARE ONE TV in which children's problem solving was assessed in a manner closely aligned with the goals of SQUARE ONE TV, particularly Goal II. This study showed that children who viewed SQUARE ONE TV daily over an extended time period used a wider variety of problem-solving actions and heuristics than those who did not. A summary appears in The Journal of Mathematical Behavior[11].

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11. Hall, E., Esty, E., & Fisch, S. (1990). Television and Children's Problem-Solving Behavior: A Synopsis of an Evaluation of the Effects of SQUARE ONE TV. Journal of Mathematical Behavior, 9(2), 161-174.

APPENDIX A

SQUARE ONE TV

COMPLETE STATEMENT OF GOALS

SQUARE ONE TELEVISION--ELABORATION Of GOALS

GOAL I. To promote positive attitudes toward, and enthusiasm for, mathematics by showing:

A. Mathematics is a powerful and widely applicable tool useful to solve problems, to illustrate concepts, and to increase efficiency.

B. Mathematics is beautiful and aesthetically pleasing.

C. Mathematics can be understood, used, and even invented, by non-specialists.

GOAL II. To encourage the use and application of problem-solving processes by modeling:

A. Problem Formulation

1. Recognize and state a problem.

2. Assess the value of solving a problem.

3. Assess the possibility of solving a problem.

B. Problem Treatment

1. Recall information.

2. Estimate or approximate.

3. Measure, gather data or check resources.

4. Calculate or manipulate (mentally or physically).

5. Consider probabilities.

6. Use trial-and-error or guess-and-check.

C. Problem-Solving Heuristics

1. Represent problem: scale model, drawing, map; picture; diagram, gadget; table, chart; graph; use object, act out.

2. Transform problem: reword, clarify; simplify; find subgoals, subproblems, work backwards.

3. Look for: patterns; missing information; distinctions in kind of information (pertinent or extraneous).

4. Reapproach problem: change point of view, reevaluate assumptions; generate new hypotheses.

D. Problem Follow-up

1. Discuss reasonableness of results and precision of results.

2. Look for alternative solutions.

3. Look for alternative ways to solve.

4. Look for, or extend to, related problems.

GOAL III. To present sound mathematical content in an interesting, accessible, and meaningful manner by exploring:

A. Numbers and Counting

1. Whole numbers.

2. Numeration: role and meaning of digits in whole numbers (place value); Roman numerals; palindromes; other bases.

3. Rational numbers: interpretations of fractions as numbers, ratios, parts of a whole or of a set.

4. Decimal notation: role and meaning of digits in decimal numeration.

5. Percents: uses; link to decimals and fractions.

6. Negative numbers: uses; relation to subtraction.

B. Arithmetic of Rational Numbers

1. Basic operations: addition, subtraction, division, multiplication, exponentiation; when and how to use operations.

2. Structure: primes, factors, and multiples.

3. Number theory: modular arithmetic (including parity); Diophantine equations; Fibonacci sequence; Pascal's triangle.

4. Approximation: rounding; bounds; approximate calculation; interpolation and extrapolation; estimation.

5. Ratios: use of ratios, rates, and proportions; relation to division; golden section.

C. Measurement

1. Units: systems (English, metric, non-standard); importance of standard units.

2. Spatial: length, area, volume, perimeter, and surface area.

3. Approximate nature: exact versus approximate, i.e., counting versus measuring; calculation with approximations; margin of error; propagation of error; estimation.

4. Additivity.

D. Numerical Functions and Relations

1. Relations: order, inequalities, subset relations, additivity, infinite sets.

2. Functions: linear, quadratic, exponential; rules, patterns.

3. Equations: solution techniques (e.g., manipulation, guess-and-test); missing addend and factor; relation to construction of numbers.

4. Formulas: interpretation and evaluation; algebra as generalized arithmetic.

E. Combinatorics and Counting Techniques

1. Multiplication principle and decomposition.

2. Pigeonhole principle.

3. Systematic enumeration of cases.

F. Statistics and Probability

1. Basic quantification: counting; representation by rational numbers.

2. Derived measures: average, median, range.

3. Concepts: independence, correlation; "Law of Averages."

4. Prediction: relation to probability.

5. Data processing: collection and analysis.

6. Data presentation: graphs, charts, tables; construction and interpretation.

G. Geometry

1. Dimensionality: one, two, three, and four dimensions.

2. Rigid transformations: transformations in two and three dimensions; rotations, reflections, and translations; symmetry.

3. Tessellations: covering the plane and bounded regions; kaleidoscopes; role of symmetry; other surfaces.

4. Maps and models in scale: application of ratios.

5. Perspective: rudiments of drawing in perspective; representation of three-dimensional objects in two dimensions.

6. Geometrical objects: recognition; relations among; constructions; patterns.

7. Topological mappings and properties: invariants.

APPENDIX B

SQUARE ONE TV

LIST OF 195 SHOWS WITH EMPHASES

SHOW	MAIN	MINI	EMPHASIS
101			
102			
103			
104	x		Scale
105	x		Percents
106	x		Angles
107	x		Percents
108		x	Volume
109		x	Odd and Even Numbers
110	x		Combinatorics
111	x		Probability
112			
113	x		Fractions
114		x	Two-dimensional Shapes
115			
116	x		Spatial Measurement
117	x		Area and Perimeter
118	x		Figurate Numbers
119	x		Rounding
120	x		Prime Numbers
121	x		Common Multiples
122			
123	x		Area of Irregular Shapes
124	x		Factors and Primes
125		x	Multiples
126	x		Data Organization
127	x		Scale
128	x		Probability
129		x	Percent
130			
131	x		Place Values
132	x		Metric Measurement
133		x	Tessellations; Fibonacci Sequences
134	x		Percent
135		x	Rates and Ratios
136	x		Fractions
137			
138	x		Parity
139	x		Working Backwards
140	x		Probability
141	x		Angles
142	x		Data Processing
143	x		Geometric Objects
144	x		Spatial Measurement
145	x		Additivity
146	x		Square Numbers
147	x		Rounding
148		x	Multiplication
149	x		Functions
150			
151		x	Pentominoes
152			
153	x		Place Value
154		x	Palindromes
155	x		Quadrilaterals
156			
157	x		Scale
158	x		Data Processing
159			
160		x	Large Numbers
161		x	Permutations
162		x	Rates
163	x		Probability
164	x		Functions (Coding)
165	x		Infinity; Parity
166	x		Multiples and Factors
167		x	Tessellations
168	x		Fractions
169	x		Area and Perimeter
170		x	Percents
171		x	Metric Measurement
172			
173	x		Logical Thinking
174			
175			
201			
202		x	Estimation
203			
204			
205	x		Modular Arithmetic
206			
207			
208			
209			
210		x	Numerical Patterns
211			
212			
213			
214			
215			
216		x	Numerical Patterns
217			
218		x	Numerical Functions
219			
220			
221			
222	x		Arithmetic of Nines
223		x	Triangles
224		x	Percents
225			
226			
227			
228		x	Triangles
229			

SHOW	MAIN	MINI	EMPHASIS
230		x	Numeration
231			
232			
233		x	Fibonacci Sequence
234			
235			
236			
237			
238			
239	x		Data Representation
240			
301		x	Large Numbers
302			
303			
304			
305		x	Large Numbers; Geometry
306			
307			
308		x	Percents
309		x	Large Numbers
310		x	Data Representation
311		x	Large Numbers; Approximation
312		x	Multiples
313			
314			
315		x	Data Representation
316			
317			
318		x	Data Representation
319	x		Combinatorics
320			
321			
322			
323		x	Measurement Estimation
324		x	Negative Numbers
325			
326		x	Rational Numbers
327			
328		x	Multiples
329		x	Percents
330			
331			
332		x	Large Numbers
333			
334			
335		x	Data Representation
336			
337			
338	x		Fractions
339			
340		x	Large Numbers
401		x	Patterns
402			
403	x		Probability
404			
405		x	Symmetry
406			
407			
408			
409	x		Survey Data, Percents
410			
411		x	Probability
412			
413	x		Estimation
414			
415		x	Probability
416			
417		x	Symmetry
418	x		Estimation
419		x	Rates
420			
421		x	Fractions
422			
423		x	Probability
424			
425			
426			
427		x	Large Numbers
428			
429			
430			
431		x	Averages
432			
433			
434		x	Alpha-numeric Codes
435			
436			
437			
438			
439			
440			

APPENDIX C

SQUARE ONE TV

FURTHER DETAILS OF ANALYSIS OF SEGMENTS

ACCORDING TO GOALS II AND III

GOAL II TALLIES

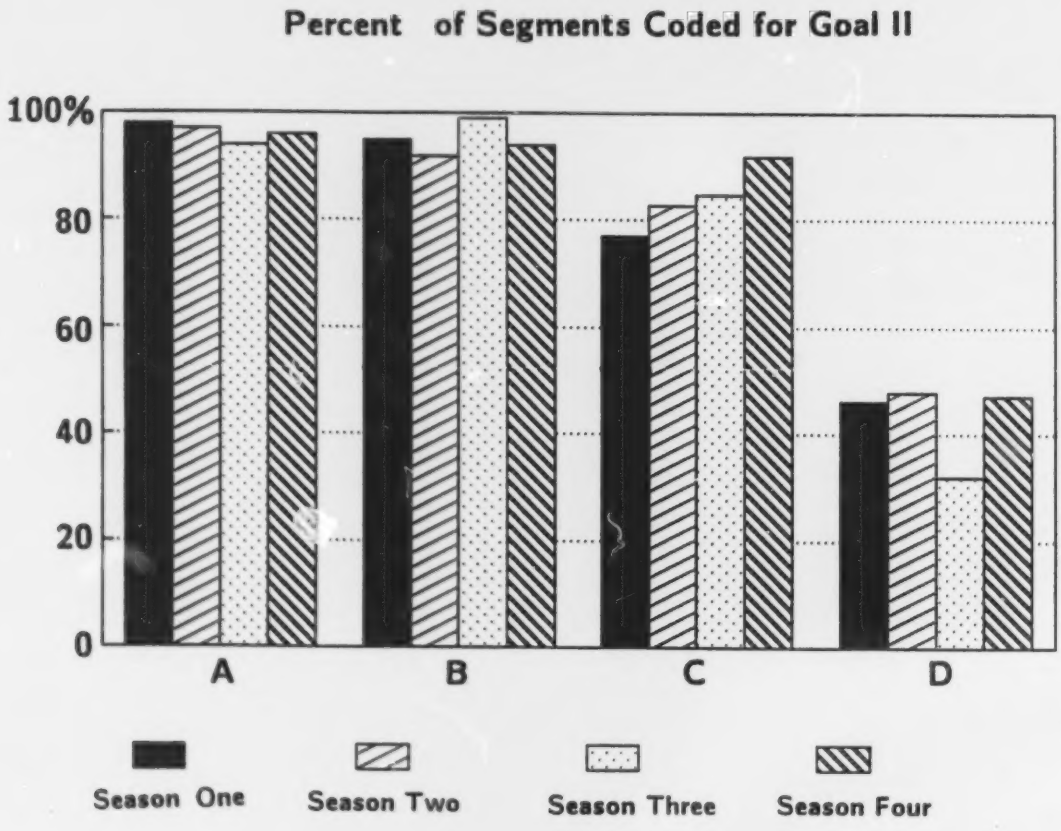
The elaborated goal statement (Appendix A) lists three to six subheadings for each Goal II objective. Tallies of the treatment of the sub-objectives in the 703 problem-solving segments from Seasons I-IV are shown in the following matrix. For example, 674 of these meet sub-objective IIA1 (recognize and state a problem).

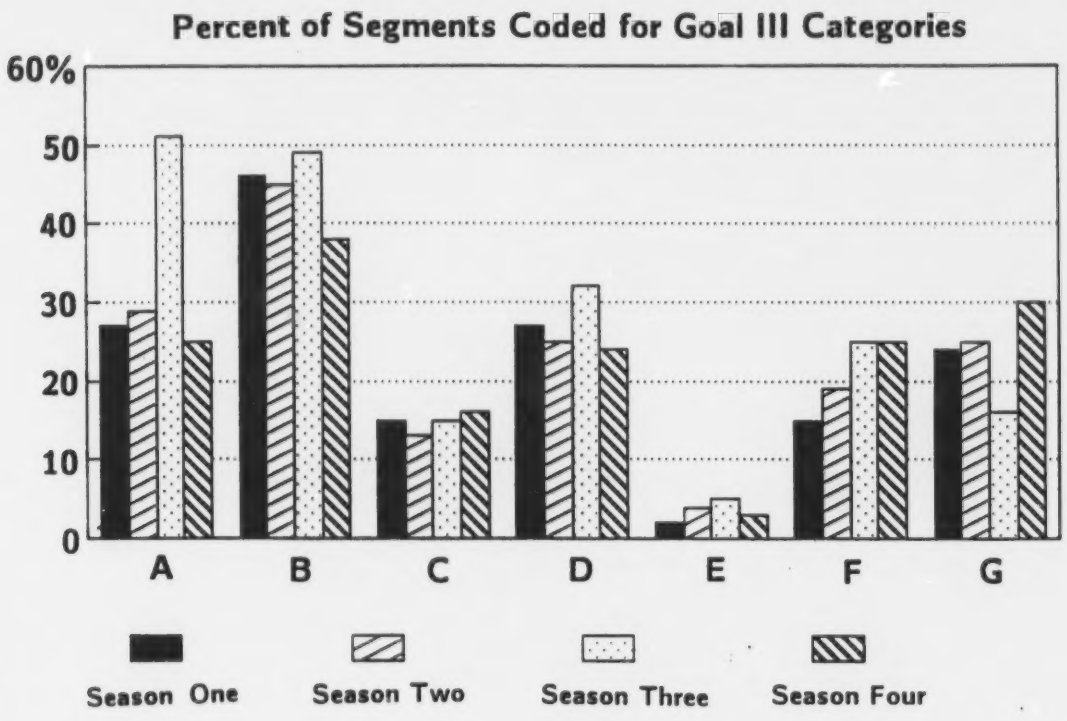
		Sub-Objectives					
	Objectives	1	2	3	4	5	6
A.	Formulation	674	112	71	-	-	-
B.	Treatment	240	143	290	395	46	99
C.	Heuristics	449	307	185	171	-	-
D.	Follow-up	210	81	52	43	-	-

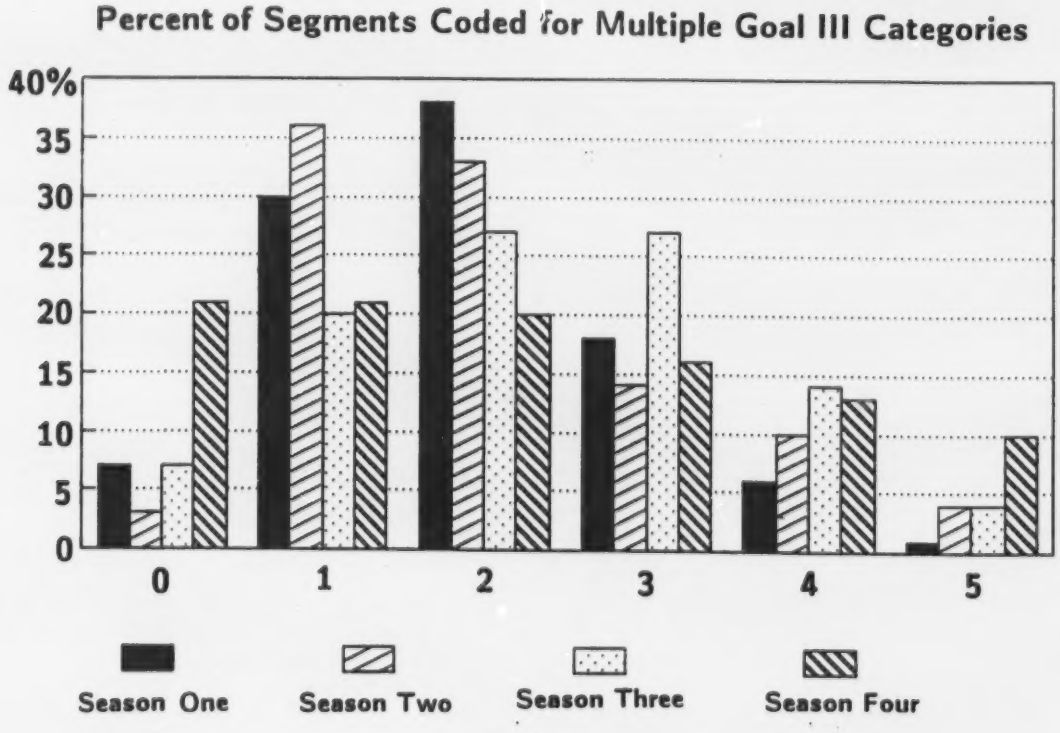
GOAL III TALLIES

The elaborated goal statement (Appendix A) lists three to six subheadings for each Goal III objective. Tallies of the treatment of the sub-objectives in the 1212 codable items from Seasons I-IV are shown in the following matrix. For example, 14 of these items meet sub-objective IIIC4 (additivity).

		Sub-Objectives						
	Objectives	1	2	3	4	5	6	7
A.	Numbers & Counting	33	56	123	61	149	22	-
B.	Arithmetic	327	123	64	94	71	-	-
C.	Measurement	65	107	76	14	-	-	-
D.	Functions	187	146	1	14	-	-	-
E.	Combinatorics	17	1	8	-	-	-	-
F.	Statistics & Probability	30	26	16	80	69	105	-
G.	Geometry	22	60	14	65	12	192	4


Percent of Segments Coded for Goal II
100%
80
60
40
20
0
A
B
C
D
Season One
Season Two
Season Three
Season Four


Percent of Segments Coded for Goal III Categories
60%
50
40
30
20
10
0
A
B
C
D
E
F
G
Season One
Season Two
Season Three
Season Four


Percent of Segments Coded for Multiple Goal III Categories
40%
35
30
25
20
15
10
5
0
0
1
2
3
4
5
Season One
Season Two
Season Three
Season Four

APPENDIX D

SQUARE ONE TV

SEASON FOUR RUNDOWNS

Reading the Show Rundowns

Each entry includes descriptive data about a segment from the production data base.

Line one:
Show number--the first digit signifies the season number;
Item number--the serial number of the segment in its show;
Item Title;
Production number--unique to each segment;
Item format--a three-letter code;

ANI	animation
GAM	game show
LAF	live-action film
NET	Mathnet episode
PAR	continuation of a multi-part segment
SON	song
SOS	game question
STU	studio sketch

Length--the running time of the segment.

Line two:
Brief description;

Last line:
Goal I classification;
Goal II classification;
Goal III classification;
Problem-solving segment (PS)--X stands for "yes".

Example: On the first page of the rundowns, we have, for show number 401, item 2, a studio sketch (STU) entitled Mathcourt 5: Deceptive Volume, listed with its brief description, Goal I coding of C, several Goal II classifications, and its Goal III coding of "B1 C2 G6". It also qualifies as a problem-solving segment.

Note: The goal content of continuations of multi-part segments (PAR) is ordinarily coded under the first part. Hence the goal classifications for segments marked "PAR" are blank.

401- 1 SHOW OPEN 44150 BUM 0:38

GOAL 1: GOAL 2: GOAL 3: PS:

401- 2 MATHCOURT 5: DECEPTIVE VOLUME 40410 STU 4:36
A fast food chain sells Mega Fries in a tall box for more than the price of fries in a shorter cube. The defendant proves that the two boxes have the same volume.

GOAL 1: C GOAL 2: A1 B3 B4 C1e C2c D1 GOAL 3: B1 C2 G6 PS: X

401- 3 PATTERNS 40470 SON 3:35
In this fast-paced song, "Weird Al" Yankovic sings about the repeating patterns that he sees everywhere: in his house, on his clothing, in music, in dance, in nature, etc.

GOAL 1: B C GOAL 2: GOAL 3: G2 G3 G6 PS:

401- 4 INSERT: JULIE BROWN-MENTAL TOOL-1B 40204 BUM 0:11
"This is downtown Julie Brown with a word of advice for you. Mathematics, it's a mental tool, use you head, it's supercool." (yellow/green(blue?) patterned background)

GOAL 1: A GOAL 2: GOAL 3: G6 PS:

401- 5 PHONER 5: CURRENT YEAR 43210 STU 4:16
Larry, as a burglar, has a one-sided telephone conversation in which he chooses a number and performs a series of operations that yield the number of the current year as a result.

GOAL 1: B C GOAL 2: GOAL 3: B1 D2 PS:

401- 6 DICK & VERN: PAT VS. KATE 44140 ANI 1:01
Dick and Vern announce the replacement of Kate Monday by Pat Tuesday.

GOAL 1: GOAL 2: GOAL 3: PS:

401- 7 MATHNET-CASE OF THE UNNATURAL-1 40121 NET 13:44
A young girl named Babs explains a number sequence game she plays with her friend Lefty, a baseball player. Enjoying a baseball comeback, he has started to send sequences that break their game rules.

GOAL 1: B C GOAL 2: A1 B1 B4 C1b C2c C3a D3 GOAL 3: A3 A4 B3 D2 F3 PS: X

401- 8 SHORT CLOSE 44300 BUM 0:46

GOAL 1: GOAL 2: GOAL 3: PS:

402- 1 SHOW OPEN 44150 BUM 0:38

GOAL 1: GOAL 2: GOAL 3: PS:

402- 2 GENERAL MATHPITAL: DECIMAL POINT 40480 STU 3:12
In a delicate and important operation, doctors show that the location of a decimal point has a significant effect on the magnitude of the number that a numeral represents.

GOAL 1: C GOAL 2: A1 B3 C2a D2 GOAL 3: A4 PS: X

402- 3 THAT'S MATH 40560 SON 3:30
Hines sings about the mathematics of a pizza bill, baseball statistics, hitting a target, and dancing.

GOAL 1: A C GOAL 2: GOAL 3: A5 B1 F1 F2 F4 PS:

402- 4 MATHCOURT 9: ELLIPTICAL CLOCK 40460 STU 3:40
The prosecutor accuses a defendant of making a faulty clock. The defendant lays his elliptical clockface over a circular one to prove that his clock is marked,correctly, at the appropriate angles.

GOAL 1: C GOAL 2: A1 B3 B4 C1e C2a C4a GOAL 3: G6 PS: X

402- 5 IF IT'S OUT THERE: SHOPPER (WATERMELON) 43050 LAF 1:02
Watermelons cost $1.00 each, so with 75 cents a customer gets 3/4 of a watermelon. The remaining 1/4 watermelon goes to a young girl who gives a quarter to the resourceful cashier.

GOAL 1: A C GOAL 2: A1 B1 B2 B4 C1e C4a D4 GOAL 3: A3 B5 C2 C3 PS: X

402- 6 MATHNET-CASE OF THE UNNATURAL-2 40122 NET 16:16
Watching Lefty practice, Pat & George notice his trainer, Dr. Steenbrenner, with talent scouts. A radar gun tells how fast Lefty pitches. Babs sees that Lefty didn't leave a number sequence for her.

GOAL 1: GOAL 2: A1 GOAL 3: B3 B5 D2 F3 PS: X

402- 7 SHORT CLOSE 44300 BUM 0:46

GOAL 1: GOAL 2: GOAL 3: PS:

403- 1 SHOW OPEN 44150 BUM 0:38

GOAL 1: GOAL 2: GOAL 3: PS:

403- 2 BUT WHO'S COUNTING?: LARGEST SUM 5/4 43120 GAM 2:30
Players arrange 4 randomly chosen numbers on their boards to form the largest sum of 2 fractions. To play, they apply understanding of probability and fractions.

GOAL 1: A C GOAL 2: A1 B4 C1b C2c GOAL 3: A3 D1 F4 PS: X

403- 3 DIRK NIBLICK: TAKE TWO AND... 40060 ANI 9:27
Dirk is coaching the baseball team. On his computer he calls up statistics on the players, and uses this info to make decisions about whom to place where. Computers can't tell him everything, though.

GOAL 1: A GOAL 2: A1 B3 B5 C1c GOAL 3: A5 F1 F2 F4 F6 PS: X

403- 4 GROWN-UPS: LAWRENCE TAYLOR 40640 STU 0:45
A child actor plays Lawrence Taylor, the football player, explaining why he will need math in the future.

GOAL 1: A C GOAL 2: GOAL 3: PS:

403- 5 MATHNET-CASE OF THE UNNATURAL-3 40123 NET 14:49
Pat & George visit Steenbrenner's old coach for info. At headquarters, they suggest that Bab send a message in alphanumeric code to Lefty. George reads in the paper that Lefty is to be auctioned off.

GOAL 1: B C GOAL 2: B1 B3 C3a C4a D3 GOAL 3: PS: X

403- 6 SHORT CLOSE 44300 BUM 0:46

GOAL 1: GOAL 2: GOAL 3: PS:

404- 1 SHOW OPEN 44150 BUM 0:38

GOAL 1: GOAL 2: GOAL 3: PS:

404- 2 MATHMAN: MATH MYTHS #4 43260 ANI 1:47
Mathman has to say whether the following statements are true or false: You need to be fast to be good at math, You need to be a brainiac to be good at math.

GOAL 1: C GOAL 2: GOAL 3: PS:

404- 3 CLOSE CALL #3 40310 GAM 7:28
Students compete against each other trying to get the closest estimate to: Baseball cards covering field diagram, Length of pole (cm), Circumference of multicycle wheel (cm) (Sports theme)

GOAL 1: C GOAL 2: A1 B2 C1b C1e D1 GOAL 3: C1 C2 C3 PS: X

404- 4 MATHNET-CASE OF THE UNNATURAL-4 40124 NET 17:59
Babs has sent a coded message to Lefty, and the Mathnetters examine his response. A previous note says "captive". Pat thinks the new one says he has been kidnapped, but they can't decode it all.

GOAL 1: A C GOAL 2: A1 B1 B3 B6 C1c C4a C4b D1 GOAL 3: C2 D2 PS: X

404- 5 LONG CLOSE 44310 BUM 0:58

GOAL 1: GOAL 2: GOAL 3: PS:

405- 1 SHOW OPEN 44150 BUM 0:38

GOAL 1: GOAL 2: GOAL 3: PS:

405- 2 COUNT THE WAYS 40210 SON 3:33
The Judds sing about how one of Wynonna's admirers expresses his affection in mathematical ways, telling her how many times his heart beats for her each minute, each hour, etc.

GOAL 1: C GOAL 2: GOAL 3: B5 PS:

405- 3 DIVISION OF: SYMMETRY 40770 ANI 0:24
Facial features are arranged on a grid to form a face, about a line of symmetry.

GOAL 1: GOAL 2: GOAL 3: G2 PS:

405- 4 GENERAL MATHPITAL: ASYMMETRIOSIS 40520 STU 4:17
In a model of an asymmetrical patient, the doctors try rearranging the pieces in various ways that would make it symmetrical.

GOAL 1: A B C GOAL 2: A1 B4 C1b C1e C2a D1 D2 D3 GOAL 3: G2 PS: X

405- 5 MATHNET-CASE OF THE UNNATURAL-5 40125 NET 17:30
Babs realizes that the numbers in the last part of Lefty's note are an address. Using a city map, the Mathnetters find Lefty. They prove that the ball player Steenbrenner is auctioning is an android.

GOAL 1: GOAL 2: A1 B1 B3 B6 C1a C2c C3a C4a C4 GOAL 3: B3 D1 D2 F6 PS: X

405- 6 CREDITS & COPYRIGHT 44340 BUM 1:36

GOAL 1: GOAL 2: GOAL 3: PS:

405- 7 LONG FRIDAY CLOSE 44320 BUM 0:49

GOAL 1: GOAL 2: GOAL 3: PS:

406- 1 SHOW OPEN 44150 BUM 0:38

GOAL 1: GOAL 2: GOAL 3: PS:

406- 2 MATHCOURT 6: LAWN AREA 40420 STU 4:25
The prosecutor claims that his rectangular lawn is smaller than his triangular lawn and pays the defendant less to mow it. The defendant shows that these two lawns have the same area.

GOAL 1: C GOAL 2: A1 B1 B2 B4 C1a C1e GOAL 3: B5 C4 G6 PS: X

406- 3 GROWN-UPS: JAMES EARL JONES 40790 STU 1:23
A child actor plays a young James Earl Jones, practicing his Shakespearian acting and explaining why he will need math in the future.

GOAL 1: A C GOAL 2: GOAL 3: PS:

406- 4 INSERT: JULIE BROWN-MENTAL TOOL-2 40208 BUM 0:11
"This is downtown Julie Brown. A word of advice for you. Mathematics, it's a mental tool, use your head, it's supercool." (wide shot, multi-colored coke bottle background)

GOAL 1: A GOAL 2: GOAL 3: PS:

406- 5 PATTERNS 40470 SON 3:35
In this fast-paced song, "Weird Al" Yankovic sings about the repeating patterns that he sees everywhere: in his house, on his clothing, in music, in dance, in nature, etc.

GOAL 1: B C GOAL 2: GOAL 3: G2 G3 G6 PS:

406- 6 MATHNET-DESPAIR IN MONTEREY BAY-1 40101 NET 17:26
George watches the rain. Pat & George get called to Monterey, CA, to protect the Despair Diamond from theft by Archie Leach. Before their flight, George discusses headwinds with the pilot.

GOAL 1: GOAL 2: A1 B2 B4 C1b GOAL 3: B1 B4 C1 G2 PS: X

406- 7 LONG CLOSE 44310 BUM 0:58

GOAL 1: GOAL 2: GOAL 3: PS:

407- 1 SHOW OPEN 44150 BUM 0:38

GOAL 1: GOAL 2: GOAL 3: PS:

407- 2 MATHMAN: MATH MYTHS #2 43240 ANI 2:02
Mathman has to say whether the following statements are true or false: You need math only in jobs where you handle money, You don't use math outside of school.

GOAL 1: A GOAL 2: GOAL 3: PS:

407- 3 SQUARE ONE CHALLENGE # 7 40280 GAM 8:36
Two students try to determine whether each of two cast members is bluffing or telling the truth when answering the questions: Tower of Blocks, Beasley Statue, 60% of 80 vs 80% of 60

GOAL 1: GOAL 2: GOAL 3: PS:

407- 3 SQUARE ONE CHALLENGE # 7 QUESTION 1 40281 SOS
How many blocks were used to build the given tower?

GOAL 1: C GOAL 2: A1 B4 C1e C2c C3a C4a GOAL 3: B1 D2 G1 G6 PS: X

407- 3 SQUARE ONE CHALLENGE # 7 QUESTION 2 40282 SOS
A statue of Beasley is 12 cm wide and 40 cm tall. If a larger version with the same proportions is 36 cm wide, then how tall is it?

GOAL 1: C GOAL 2: A1 B1 B4 C1a C2c D1 GOAL 3: B5 G4 PS: X

407- 3 SQUARE ONE CHALLENGE # 7 QUESTION 3 40283 SOS
Which is worth more--60% of 80 dollars or 80% of 60 dollars?

GOAL 1: C GOAL 2: A1 B4 D4 GOAL 3: A5 B1 D1 PS: X

407- 4 MATHNET-DESPAIR IN MONTEREY BAY-2 40102 NET 16:49
The diamond is stolen from a preview benefit party, and Archie Leach is seen escaping from the premises in a boat, which capsizes. Pat & George find the capsize location by triangulation, & dive down.

GOAL 1: A GOAL 2: A1 A3 B3 B4 C1a C2c C3b GOAL 3: G6 PS: X

407- 5 SHORT CLOSE 44300 BUM 0:46

GOAL 1: GOAL 2: GOAL 3: PS:

408- 1 SHOW OPEN 44150 BUM 0:38

GOAL 1: GOAL 2: GOAL 3: PS:

408- 2 GENERAL MATHPITAL: BISECTOMY 40490 STU 3:12
An angle must be bisected, and Reg, the doctor, illustrates the procedure on a diagram. He marks off the construction using compass, straight edge, and marker.

GOAL 1: A C GOAL 2: A1 B4 C1b C1e C2a D3 GOAL 3: G6 PS: X

408- 3 DICK & VERN: PHONER PENCIL & PAPER 44090 ANI 1:07
Dick and Vern tell the viewer to get pencil and paper so they can learn from the "Phoner" which is coming up next.

GOAL 1: GOAL 2: GOAL 3: PS:

408- 4 PHONER 3: ORIGINAL NUMBER--1089 43190 STU 2:12
Arthur has a one-sided telephone conversation in which he chooses a number and performs a series of operations (using 1089) that always return him to his original number.

GOAL 1: B C GOAL 2: GOAL 3: B1 D2 PS:

408- 5 GROWN-UPS: ROBIN LEACH 40670 STU 0:54
A child actor plays a young Robin Leach, host of "Lifestyles of the Rich and Famous", explaining why he will need math in the future.

GOAL 1: A C GOAL 2: GOAL 3: PS:

408- 6 MATHNET-DESPAIR IN MONTEREY BAY-3 40103 NET 19:30
Pat & George dive where the boat capsized but don't see the diamond. They realize they need to take the current into account, so they gather data, recalculate, perform an experiment, and dive again.

GOAL 1: A GOAL 2: A1 B1 B3 B4 C1a C1e C2c C3b C4 GOAL 3: B1 B5 C1 C3 G6 PS: X

408- 7 LONG CLOSE 44310 BUM 0:58

GOAL 1: GOAL 2: GOAL 3: PS:

409- 1 SHOW OPEN 44150 BUM 0:38

GOAL 1: GOAL 2: GOAL 3: PS:

409- 2 MATHCOURT 4: PERCENTAGE GREATER THAN 100 40400 STU 4:15
The prosecutor claims that a survey is inaccurate because the percentages reported total more than 100. The defendant uses a Venn diagram to show how to interpret these results.

GOAL 1: C GOAL 2: A1 B1 C1c C2a C4a D1 GOAL 3: A5 D1 F5 F6 PS: X

409- 3 GROWN-UPS: JOAN RIVERS 43100 STU 1:04
A child actor plays a young Joan Rivers, talk show hostess, explaining why she will need math in the future.

GOAL 1: A C GOAL 2: GOAL 3: PS:

409- 4 PIECE OF THE PIE #3 40150 GAM 6:24
Two teams guess top answers to the survey question "Favorite black & white tv show." Team earning greater percentage guesses top answer to: thing at a rodeo, nongreen vegetable, disgusting bug.

GOAL 1: A C GOAL 2: A1 B3 B6 C2a C3b GOAL 3: A5 B1 D1 F6 PS: X

409- 5 MATHNET-DESPAIR IN MONTEREY BAY-4 40104 NET 15:45
Pat & George get approximate underwater currents for the accident time, & adjust their dive location. They find other objects from the boat & time them as they drop in a pool. Archie's shoe turns up.

GOAL 1: A GOAL 2: A1 B2 B3 B4 C1a C1c C1e C2c C3 GOAL 3: B5 C1 F5 F6 G6 PS: X

409- 6 SHORT CLOSE 44300 BUM 0:46

GOAL 1: GOAL 2: GOAL 3: PS:

410- 1 SHOW OPEN 44150 BUM 0:38

GOAL 1: GOAL 2: GOAL 3: PS:

410- 2 CAREERS PSA #1 (BOTANIST) 43280 LAF 0:32
The song says "In every occupation, wherever you may go, you gotta know math" while the pictures show a botanist, sculptor, pediatrician, architect, hat maker, basketball coach & recording technician.

GOAL 1: A C GOAL 2: GOAL 3: PS:

410- 3 DIRK NIBLICK: THE INQUISITION (PART I) 40031 ANI 3:58
The police must locate a bank robber with information gleaned from an interview with the key witness, Beasley. Combinatorics eliminate some possible license numbers, but is there other relevant info?

GOAL 1: A GOAL 2: A1 B1 B3 B4 C1b C2b C3b C3c C4 GOAL 3: A1 B1 E1 PS: X

410- 4 IF IT'S OUT THERE: CHEF (POPOVER) 43080 LAF 1:17
A home cook follows the instructions of a tv chef, but uses a tablespoon of baking powder instead of a teaspoon, so his popover comes out unusually large.

GOAL 1: A C GOAL 2: GOAL 3: C1 PS:

410- 5 DIRK NIBLICK: THE INQUISITION (PART II) 40032 PAR 3:43

GOAL 1: GOAL 2: GOAL 3: PS:

410- 6 MATHNET-DESPAIR IN MONTEREY BAY-5 40105 NET 16:25
Pat & George hypothesize that Archie drifted seaward with the boat before the diamond dropped, but this means that it fell into very deep water. They send a remotely operated vehicle down to search.

GOAL 1: GOAL 2: B1 B2 B3 B4 C1a C1c C2c C4a C4 GOAL 3: C1 C3 F5 F6 G6 PS: X

410- 7 CREDITS & COPYRIGHT 44340 BUM 1:36

GOAL 1: GOAL 2: GOAL 3: PS:

410- 8 SHORT FRIDAY CLOSE 44330 BUM 0:37

GOAL 1: GOAL 2: GOAL 3: PS:

411- 1 SHOW OPEN 44150 BUM 0:38

GOAL 1: GOAL 2: GOAL 3: PS:

411- 2 DICK & VERN: BUT WHO'S COUNTING LEAD-IN 40570 ANI 0:58
Dick and Vern encourage viewers to get their pencils and paper out for "But Who's Counting?".

GOAL 1: GOAL 2: GOAL 3: PS:

411- 3 BUT WHO'S COUNTING?: SMALLEST SUM 2/4 43140 GAM 2:58
Players arrange 4 randomly chosen numbers on their boards to form the smallest sum of 2 fractions. To play, they apply understanding of probability and fractions.

GOAL 1: A C GOAL 2: A1 B4 C1b C2a C2c GOAL 3: A3 D1 F4 PS: X

411- 4 DIVISION OF: PATTERNS 40750 ANI 0:43
The marching band at a half-time show forms patterns on the playing field. "Brought to you by geometry"

GOAL 1: GOAL 2: GOAL 3: PS:

411- 5 SQUARE ONE CHALLENGE # 3 40240 GAM 9:09
Two students try to determine whether each of two cast members is bluffing or telling the truth when answering the questions: Rectangle/2 Pieces, Tug-of-War Teams, 2 Spinners Giving a Total of 12

GOAL 1: GOAL 2: GOAL 3: PS:

411- 5 SQUARE ONE CHALLENGE # 3 QUESTION 1 40241 SOS
A rectangle is cut a certain way into 2 pieces. If the pieces are rearranged what might the new shape look like?

GOAL 1: C GOAL 2: A1 B4 C1e D2 GOAL 3: G2 PS: X

411- 5 SQUARE ONE CHALLENGE # 3 QUESTION 2 40242 SOS
If two members of the blue team wear glasses and three fourths of them do not, then how many players does the blue team have?

GOAL 1: C GOAL 2: A1 B4 GOAL 3: A3 B1 D1 PS: X

411- 5 SQUARE ONE CHALLENGE # 3 QUESTION 3 40243 SOS
Given two spinners, with different sets of numbers (2,2,2,4,4,4 and 3,3,3,3,3,3), which one is more likely to give a total of 12 in 4 spins?

GOAL 1: C GOAL 2: A1 B5 GOAL 3: F4 PS: X

411- 6 DIVISION OF: LOTTERY 40700 ANI 0:45
Balls pop up to determine the winning lottery number. "Brought to you by probability"

GOAL 1: GOAL 2: GOAL 3: PS:

411- 7 MATHNET-THE CALPURNIAN KUGEL CAPER-1 40071 NET 12:38
George introduces a game called Wheel of Jeopardy that uses 3 types of random number generators. The Mathnetters get an assignment from the CIA to protect the young King Chris of Calpurnia.

GOAL 1: B GOAL 2: GOAL 3: F3 F4 PS:

411- 8 LONG CLOSE 44310 BUM 0:58

GOAL 1: GOAL 2: GOAL 3: PS:

412- 1 SHOW OPEN 44150 BUM 0:38

GOAL 1: GOAL 2: GOAL 3: PS:

412- 2 PHONER 1: ORIGINAL NUMBER (25) 41370 STU 2:38
Cynthia, as a judge, has a one-sided telephone conversation in which she chooses a number and performs a series of operations (adding 25, etc.) that always return her to her original number.

GOAL 1: B C GOAL 2: GOAL 3: B1 D2 PS:

412- 3 GROWN-UPS: MARV ALBERT 40660 STU 0:34
A child actor plays a young Marv Albert, the sportscaster, explaining why he will need math in the future.

GOAL 1: A C GOAL 2: GOAL 3: PS:

412- 4 DICK & VERN: "DR. J" LEAD-IN 40630 ANI 1:40
Dick and Vern announce the "Dr. J" segment and invite viewers to find the mistake in the segment.

GOAL 1: C GOAL 2: GOAL 3: PS:

412- 5 BACKBOARD HIGH 14000 STU 1:45
Julius Erving shows how averages can be misleading when his team wins a 4 out of 5 game series but has a lower average for points per game. They won the 4 games by 1 point but lost the last by 50.

GOAL 1: GOAL 2: GOAL 3: F2 A4 PS:

412- 6 DICK & VERN: "DR. J" TAG 44400 ANI 0:13

GOAL 1: GOAL 2: GOAL 3: PS:

412- 7 INSERT: JULIE BROWN-MENTAL TOOL-1A 40203 BUM 0:11
"This is Downtown Julie Brown with a word of advice for you. Mathematics, it's a mental tool, use your head, it's supercool." (green/blue "nightclub" background)

GOAL 1: A GOAL 2: GOAL 3: PS:

412- 8 PIECE OF THE PIE #3(BU) 40151 GAM 6:43
Two teams guess top answers to the survey question "Name something sticky." Team earning greater percentage guesses top answer to: carpenter's tool, sandwich, way to help the planet.

GOAL 1: A C GOAL 2: A1 B3 B6 C3b D2 GOAL 3: A5 B1 D1 F6 PS: X

412- 9 IF IT'S OUT THERE: TRAVEL AGENT 43070 LAF 1:03
Two customers wonder how their plane can leave New York at 4 pm & arrive in London at 4 pm. The travel agent points to a set of clocks indicating that there is a time difference between the cities.

GOAL 1: A C GOAL 2: GOAL 3: B1 PS:

412-10 MATHNET-THE CALPURNIAN KUGEL CAPER-2 40072 NET 12:39
Chris shows his computerized game. Pat & George hear about Calpurnia's chuckberry-based economy & Chris meets prospective buyers. No one will buy the berries now since an article says they cause zits.

GOAL 1: B C GOAL 2: A1 A2 GOAL 3: D2 F1 F3 F5 PS: X

412-11 LONG CLOSE 44310 BUM 0:58

GOAL 1: GOAL 2: GOAL 3: PS:

413- 1 SHOW OPEN 44150 BUM 0:38

GOAL 1: GOAL 2: GOAL 3: PS:

413- 2 MATHCOURT 8: ROUNDING DOWN 40440 STU 3:41
The prosecutor asked the defendant to build 36 chairs from 143 chair legs. The defendant did so, but one of them had only three legs. The defendant explains that sometimes you have to round down.

GOAL 1: C GOAL 2: A1 B2 B4 C2a D1 GOAL 3: A4 B1 B4 PS: X

413- 3 THAT'S MATH 40560 SON 3:30
Hines sings about the mathematics of a pizza bill, baseball statistics, hitting a target, and dancing.

GOAL 1: A C GOAL 2: GOAL 3: A5 B1 F1 F2 F4 PS:

413- 4 DIVISION OF: ESTIMATION 40710 ANI 0:36
Using her calculator, a female contractor estimates the amount of wood needed to build a large sign.

GOAL 1: A C GOAL 2: GOAL 3: C1 C3 PS:

413- 5 CLOSE CALL #4 40320 GAM 7:50
Students compete against each other trying to get the closest estimate to: Area of Central Park (acres), Percentage of kids wearing crowns, Hot dogs on string (New York theme)

GOAL 1: C GOAL 2: A1 B2 C1b C1e D1 GOAL 3: A5 C1 C2 C3 G4 PS: X

413- 6 DIVISION OF: COIN TOSS 40740 ANI 0:20
A coin is tossed to determine which team starts the football game. "Brought to you by probability"

GOAL 1: C GOAL 2: GOAL 3: PS:

413- 7 MATHNET-THE CALPURNIAN KUGEL CAPER-3 40073 NET 11:17
BLT, the company that bought last year's chuckberry crop, looks suspicious. Kugels are the unit of Calpurnia's money, & BLT used kugels to buy the berries. George finds the article on zits is a fake.

GOAL 1: A GOAL 2: A1 B3 C1c C3b C3c C4a D1 GOAL 3: D2 F3 F5 F6 PS: X

413- 8 LONG CLOSE 44310 BUM 0:58

GOAL 1: GOAL 2: GOAL 3: PS:

414- 1 SHOW OPEN 44150 BUM 0:38

GOAL 1: GOAL 2: GOAL 3: PS:

414- 2 DIRK NIBLICK: BANANZA (PART I) 40051 ANI 3:58
Dirk helps 4 brothers to divide their triangular family land equally. When one brother leaves, they need to repartition it. One solution involves recursion.

GOAL 1: A GOAL 2: A1 B1 B3 B4 B6 C1b D1 D2 D3 D4 GOAL 3: D2 G6 PS: X

414- 3 MATHMAN: MATH MYTHS #3 43250 ANI 2:03
Mathman has to say whether these are true or false: If you wear glasses you're better at math than if you don't, Tall people are better at math than short ones, Curly-haired people from Cleveland...

GOAL 1: C GOAL 2: GOAL 3: PS:

414- 4 DIRK NIBLICK: BANANZA (PART II) 40052 PAR 3:18

GOAL 1: GOAL 2: GOAL 3: PS:

414- 5 MATHNET-THE CALPURNIAN KUGEL CAPER-4 40074 NET 18:07
George & Pat think counterfeit kugels are circulating & borrow some to test. When they play a game with them they find that no digits repeat. Near the printer's they find a Kaboomland brochure.

GOAL 1: A B GOAL 2: A1 B1 B2 B3 B4 B5 C2c D1 D4 GOAL 3: A5 B1 E1 F4 F6 PS: X

414- 6 SHORT CLOSE 44300 BUM 0:46

GOAL 1: GOAL 2: GOAL 3: PS:

415- 1 SHOW OPEN 44150 BUM 0:38

GOAL 1: GOAL 2: GOAL 3: PS:

415- 2 OLD PHILOSOPHER #4: FOOTBALL 40800 STU 2:26
The Old Philosopher tells a story about having to figure out how many cars are needed to transport 30 football players, when 4 can fit in each car. Rounding up is important so there will be enough.

GOAL 1: C GOAL 2: A1 A2 B1 B4 C2a D1 GOAL 3: B1 PS: X

415- 3 GENERAL MATHPITAL: DECIMAL POINT 40480 STU 3:12
In a delicate and important operation, doctors show that the location of a decimal point has a significant effect on the magnitude of the number that a numeral represents.

GOAL 1: C GOAL 2: A1 B3 C2a D2 GOAL 3: A4 PS: X

415- 4 BUT WHO'S COUNTING?: LARGEST SUM 8/1 43110 GAM 2:29
Players arrange four randomly chosen numbers on their boards to form the largest sum of two fractions. To play, they apply understanding of probability and fractions.

GOAL 1: A C GOAL 2: A1 B2 B4 C1b C2a C2c GOAL 3: A3 B4 D1 F4 PS: X

415- 5 DIVISION OF: GUMBALL 40690 ANI 0:39
A girl wants a red gumball. Although the probability of getting red is less thanthe probability of getting other colors, she gets one after several tries.

GOAL 1: GOAL 2: GOAL 3: PS:

415- 6 MATHNET-THE CALPURNIAN KUGEL CAPER-5 40075 NET 16:54
Kaboom Pickens offers to buy Calpurnia for 1 billion kugels. Pat pretends to be another buyer & they agree to play "the dollar game" with kugels to see who gets Calpurnia. Pat's kugels win every time.

GOAL 1: A GOAL 2: A1 B3 B5 C1e C4b GOAL 3: A3 A5 F4 PS: X

415- 7 CREDITS & COPYRIGHT 44340 BUM 1:36

GOAL 1: GOAL 2: GOAL 3: PS:

415- 8 LONG FRIDAY CLOSE 44320 BUM 0:49

GOAL 1: GOAL 2: GOAL 3: PS:

416- 1 SHOW OPEN 44150 BUM 0:38

GOAL 1: GOAL 2: GOAL 3: PS:

416- 2 SQUARE ONE CHALLENGE # 2A 40231 GAM 8:31
Two students try to determine whether each of two cast members is bluffing or telling the truth when answering the questions: Boxes with Triangles, T-Shirts and Shorts, Dodecahedron Die

GOAL 1: GOAL 2: GOAL 3: PS:

416- 2 SQUARE ONE CHALLENGE # 2A QUESTION 1 40232 SOS
Two boxes are shown, and each has a blue triangle on it. Is it possible to make any of the given shapes by attaching the two boxes so that the triangles are exactly aligned on top of each other?

GOAL 1: C GOAL 2: A1 B4 C1e C4a D2 GOAL 3: G2 G6 PS: X

416- 2 SQUARE ONE CHALLENGE # 2A QUESTION 2 40233 SOS
If you have six t-shirts, how many shorts do you need to make at least twenty different combinations of t-shirts and shorts?

GOAL 1: C GOAL 2: A1 B4 C1e C2c GOAL 3: E1 PS: X

416- 2 SQUARE ONE CHALLENGE # 2A QUESTION 3 40234 SOS
Given a dodecahedron die with 5 red faces, 4 purple faces, and 3 green faces, which graph shows data that is more likely to be the results of 500 rolls?

GOAL 1: C GOAL 2: A1 B5 C1b C1c GOAL 3: F1 F4 F6 G6 PS: X

416- 3 DICK & VERN: "CARTA BLANCA" LEAD-IN 40610 ANI 0:55
Dick and Vern announce "Carta Blanca, saying "Watch the sketch and learn about rounding".

GOAL 1: GOAL 2: GOAL 3: PS:

416- 4 MATINEE MOVIE: CARTABLANCA 12630 STU 6:20
As three characters attempt to leave Cartablanca by plane, an Inspector rounds up their weights to make sure that they do not exceed the maximum load.

GOAL 1: A GOAL 2: A1 A2 B2 B4 D1 GOAL 3: B4 B1 PS: X

416- 5 MATHNET-CASE OF THE GALLING STONES-1 40111 NET 11:16
George, Grecco, & Middlemun search Pat's apartment after Hestor Phestor accuses her of stealing a bracelet. They find it there: a gold dodecahedron with a letter on each face, hanging from a chain.

GOAL 1: GOAL 2: A1 GOAL 3: G6 PS: X

416- 6 LONG CLOSE 44310 BUM 0:58

GOAL 1: GOAL 2: GOAL 3: PS:

417- 1 SHOW OPEN 44150 BUM 0:38

GOAL 1: GOAL 2: GOAL 3: PS:

417- 2 DICK & VERN/POS: DODECAHEDRON 44450 ANI 0:59

GOAL 1: GOAL 2: GOAL 3: PS:

417- 3 DANCE OF THE GEO SHAPES:DODECAHEDRON 13606 ANI 0:23
Computer graphics illustrate and highlight a dodecahedron as it rotates in space.

GOAL 1: B GOAL 2: GOAL 3: G6 G1 PS:

417- 4 PATTERNS 40470 SON 3:35
In this fast-paced song, "Weird Al" Yankovic sings about the repeating patterns that he sees everywhere: in his house, on his clothing, in music, in dance, in nature, etc.

GOAL 1: B C GOAL 2: GOAL 3: G2 G3 G6 PS:

417- 5 PHONER 4: TRIPLE IT 43200 STU 2:29
Reg, with a broken arm, has a one-sided telephone conversation in which he chooses a number and performs a series of operations (tripling, dividing by 3, etc.) that always return his original number.

GOAL 1: B C GOAL 2: GOAL 3: B1 D2 PS:

417- 6 DIVISION OF: SYMMETRY 40770 ANI 0:24
Facial features are arranged on a grid to form a face, about a line of symmetry.

GOAL 1: GOAL 2: GOAL 3: G2 PS:

417- 7 GENERAL MATHPITAL: ASYMMETRIOSIS 40520 STU 4:17
In a model of an asymmetrical patient, the doctors try rearranging the pieces in various ways that would make it symmetrical.

GOAL 1: A B C GOAL 2: A1 B4 C1b C1e C2a D1 D2 D3 GOAL 3: G2 PS: X

417- 8 MATHNET-CASE OF THE GALLING STONES-2 40112 NET 15:14
George thinks the bracelet fell into Pat's pocket when Hestor bumped her. In Pat's trial, Middlemun announces that one of his emeralds has been replaced with a fake. They find it in Pat's apartment.

GOAL 1: GOAL 2: A1 B1 B3 B5 C1e C4b D1 GOAL 3: F1 F4 F5 G6 PS: X

417- 9 SHORT CLOSE 44300 BUM 0:46

GOAL 1: GOAL 2: GOAL 3: PS:

418- 1 SHOW OPEN 44150 BUM 0:38

GOAL 1: GOAL 2: GOAL 3: PS:

418- 2 MATHCOURT 2: CALCULATOR ESTIMATION 40380 STU 4:28
Since he didn't estimate the size of his answer, the prosecutor didn't see that his calculator computation was wrong, and bought too much paint for his garage floor. Also: rounding up to have enough.

GOAL 1: C GOAL 2: A1 B2 B4 C1a D1 GOAL 3: B1 B4 C2 D1 PS: X

418- 3 INSERT: DRACULA 4 43034 BUM 0:10
"Mathematics. It's much more than just arithmetic, it's estimation, for example. Check this out."

GOAL 1: GOAL 2: GOAL 3: PS:

418- 4 CLOSE CALL #2 40300 GAM 8:33
Students compete against each other trying to get the closest estimate to: Dots on picture, Lights on car, Plastic hangers in hanger sculpture (Art theme)

GOAL 1: C GOAL 2: A1 B2 C1b C1e D1 GOAL 3: C2 C3 PS: X

418- 5 MATHNET-CASE OF THE GALLING STONES-3 40113 NET 14:05
Gemologist Louie can tell if a gem is fake. George makes a model of the bracelet's dodecahedron. Pat finds out Hestor was at a salon where a diamond was replaced by a fake & Louie checks for others.

GOAL 1: GOAL 2: A3 B1 B3 B4 C1b C2c C3a C3b C4 GOAL 3: G4 G5 G6 PS: X

418- 6 LONG CLOSE 44310 BUM 0:58

GOAL 1: GOAL 2: GOAL 3: PS:

419- 1 SHOW OPEN 44150 BUM 0:38

GOAL 1: GOAL 2: GOAL 3: PS:

419- 2 DIRK NIBLICK: TO THERE & BACK (PART I) 40041 ANI 5:19
Beasley has hired Fluff and Fold for his new delivery service. He finds that if they take the route he initially planned, he will be losing money. Is there a shorter route?

GOAL 1: A GOAL 2: A1 B1 B4 C1a C2c D1 D2 D3 GOAL 3: B1 B5 C4 G4 PS: X

419- 3 RAPPIN' JUDGE 14740 SON 2:40
A judge raps his decision that a girl on a skateboard could not have committed the crime because she could not have travelled 8 miles in 2 hours if she were only going 3 miles per hour.

GOAL 1: A C GOAL 2: A1 B1 B3 B4 D1 C1a GOAL 3: B5 C2 B1 PS: X

419- 4 DIRK NIBLICK: TO THERE & BACK (PART II) 40042 PAR 3:16

GOAL 1: GOAL 2: GOAL 3: PS:

419- 5 DIVISION OF: MAPPING 40720 ANI 0:30
Using a map to find the way to the New World.
"Brought to you by geometry"

GOAL 1: A C GOAL 2: GOAL 3: G4 PS:

419- 6 MATHNET-CASE OF THE GALLING STONES-4 40114 NET 15:34
Each island of Mondo Yucky used to trade with 5 others. The country had a symbolic dodecahedron icon. Louie finds a pattern of jewel thefts. George interprets the dodecahedron faces as islands.

GOAL 1: GOAL 2: A2 B1 B3 B6 C1b C1c C3a C3b C3 GOAL 3: F5 F6 G6 PS: X

419- 7 SHORT CLOSE 44300 BUM 0:46

GOAL 1: GOAL 2: GOAL 3: PS:

420- 1 SHOW OPEN 44150 BUM 0:38

GOAL 1: GOAL 2: GOAL 3: PS:

420- 2 GROWN-UPS: LAWRENCE TAYLOR 40640 STU 0:45
A child actor plays Lawrence Taylor, the football player, explaining why he will need math in the future.

GOAL 1: A C GOAL 2: GOAL 3: PS:

420- 3 PIECE OF THE PIE #4 40160 GAM 6:30
Two teams guess top answers to the survey question "Name a food that comes in slices." Team earning greater percentage guesses top answer to: dog trick, continent, unpopular pizza topping.

GOAL 1: A C GOAL 2: A1 B3 B6 C3b GOAL 3: A5 B1 D1 F6 PS: X

420- 4 IF IT'S OUT THERE: DIRECTOR 43060 LAF 1:05
A movie actress must act afraid when she sees a version of King Kong, but she laughs to see how small he really is. With a lamp, the directors project his shadow onto the wall & it looms much larger.

GOAL 1: A C GOAL 2: A1 C1e C4a GOAL 3: G4 G5 PS: X

420- 5 MATHNET-CASE OF THE GALLING STONES-5 40115 NET 17:36
By analyzing Hestor's salon visits, the Mathnetters begin to understand her methods. They predict that she will steal a June birthstone (pearl), and stake out the Pearl-O-Rama to catch her in action.

GOAL 1: GOAL 2: A3 B1 B3 C1c C3a C4a C4b GOAL 3: G6 PS: X

420- 6 CREDITS & COPYRIGHT 44340 BUM 1:36

GOAL 1: GOAL 2: GOAL 3: PS:

420- 7 SHORT FRIDAY CLOSE 44330 BUM 0:37

GOAL 1: GOAL 2: GOAL 3: PS:

421- 1 SHOW OPEN 44150 BUM 0:38

GOAL 1: GOAL 2: GOAL 3: PS:

421- 2 COUNT THE WAYS 40210 SON 3:33
The Judds sing about how one of Wynonna's admirers expresses his affection in mathematical ways, telling her how many times his heart beats for her each minute, each hour, etc.

GOAL 1: C GOAL 2: GOAL 3: B5 PS:

421- 3 MATHCOURT 3: ADDING FRACTIONS 40390 STU 3:38
The prosecutor charges that the sum of two fractions must be a fraction, and claims that the sum of 1/4 + 1/4 + 1/2 is 3/10. The defendant uses coins to demonstrate that the correct sum is 1.

GOAL 1: C GOAL 2: A1 B1 B4 C1e C2a D1 GOAL 3: A3 B1 D1 PS: X

421- 4 IF IT'S OUT THERE: SHOPPER (WATERMELON) 43050 LAF 1:02
Watermelons cost $1.00 each, so with 75 cents a customer gets 3/4 of a watermelon. The remaining 1/4 watermelon goes to a young girl who gives a quarter to the resourceful cashier.

GOAL 1: A C GOAL 2: A1 B1 B2 B4 C1e C4a D4 GOAL 3: A3 B5 C2 C3 PS: X

421- 5 BUT WHO'S COUNTING?: SMALLEST SUM C.OUT 43150 GAM 2:49
Players arrange 4 randomly chosen numbers on their boards to form the smallest sum of 2 fractions. To play, they apply understanding of probability and fractions. (with final castout)

GOAL 1: A C GOAL 2: A1 B1 B4 C1b C2c GOAL 3: A3 D1 F4 PS: X

421- 6 CAREERS PSA #2 (CHEF) 43290 LAF 0:32
The song says "In every occupation, wherever you may go, you gotta know math" while the pictures show a chef, helicoptor pilot, vet, dancer, artist, coast guardsman, & a recording technician at work.

GOAL 1: A C GOAL 2: GOAL 3: PS:

421- 7 MATHNET-CASE OF THE POCONOS PARADISE-1 40091 NET 15:35
After a significant increase in burglaries in the 19th precinct, Pat & George interview the victims, and find that they all spent the weekend in the same place. Mathnet's new computer system arrives.

GOAL 1: GOAL 2: A1 B1 B3 C3a GOAL 3: F2 PS: X

421- 8 LONG CLOSE 44310 BUM 0:58

GOAL 1: GOAL 2: GOAL 3: PS:

422- 1 SHOW OPEN 44150 BUM 0:38

GOAL 1: GOAL 2: GOAL 3: PS:

422- 2 OLD PHILOSOPHER #5: AVERAGE 40810 STU 2:52
The Old Philosopher tells a story about finding the average driving speed needed in order to drive 580 miles in 10 hours. He points out the importance of having enough information to solve a problem.

GOAL 1: C GOAL 2: A1 A3 B3 B4 C1a C2c C3b GOAL 3: B1 F2 G4 PS: X

422- 3 PIECE OF THE PIE #5 40170 GAM 6:43
Two teams guess top answers to the survey question "Name a food many kids don't like." Team earning greater percentage guesses top answer to: thing to keep in box, fish, topping for cereal.

GOAL 1: A C GOAL 2: A1 B6 C3b C4a D2 GOAL 3: A5 B1 D1 F6 PS: X

422- 4 INSERT: DRACULA 1 43031 BUM 0:08
"I always loved mathematics when I was in school...I found it so juicy"

GOAL 1: C GOAL 2: GOAL 3: PS:

422- 5 PHONER 6: SUM OF DIGITS ALWAYS 9 43220 STU 2:27
Luisa, a telephone operator, has a one-sided telephone conversation in which she chooses a 3-digit number and performs a series of operations that always give her a number with digits adding up to 9.

GOAL 1: B C GOAL 2: GOAL 3: B1 D2 PS:

422- 6 MATHNET-CASE OF THE POCONOS PARADISE-2 40092 NET 15:06
Using the computer, George finds patterns in the recent burglaries. A new rash of thefts occurs. George & Pat interview the owner of Poconos Paradise, the resort where the original victims stayed.

GOAL 1: GOAL 2: B1 B3 C3a C3b GOAL 3: PS: X

422- 7 LONG CLOSE 44310 BUM 0:58

GOAL 1: GOAL 2: GOAL 3: PS:

423- 1 SHOW OPEN 44150 BUM 0:38

GOAL 1: GOAL 2: GOAL 3: PS:

423- 2 YOU CALL THE ANGLE 1 -- 360 30680 LAF 0:46
A skateboarder demonstrates a turn. The viewer is asked to determine the angle of rotation.

GOAL 1: C GOAL 2: A1 B1 C1b C2a GOAL 3: G2 PS: X

423- 3 DIVISION OF: PATTERNS 40750 ANI 0:43
The marching band at a half-time show forms patterns on the playing field. "Brought to you by geometry"

GOAL 1: GOAL 2: GOAL 3: PS:

423- 4 SQUARE ONE CHALLENGE # 4 40250 GAM 8:56
Two students try to determine whether each of two cast members is bluffing or telling the truth when answering the questions: 7-Sided Net, Lily Pond, Coin Flips

GOAL 1: GOAL 2: GOAL 3: PS:

423- 4 SQUARE ONE CHALLENGE # 4 QUESTION 1 40251 SOS
Which net(s) could you get if you unfolded the given 7-sided box?

GOAL 1: C GOAL 2: A1 B4 C1b C1e D2 GOAL 3: G5 G6 PS: X

423- 4 SQUARE ONE CHALLENGE # 4 QUESTION 2 40252 SOS
The surface area covered by lily pads in a pond doubles every month. If the pond is completely covered at the end of one year, after which month was it half-covered?

GOAL 1: C GOAL 2: A1 B1 B4 C2c GOAL 3: B5 D2 PS: X

423- 4 SQUARE ONE CHALLENGE # 4 QUESTION 3 40253 SOS
If eight flips of a coin are H,T,H,T,H,T,H,T (in that order), then which is more likely to come up on the next flip--heads or tails?

GOAL 1: C GOAL 2: A1 B5 GOAL 3: F3 F4 PS: X

423- 5 DIVISION OF: COIN TOSS 40740 ANI 0:20
A coin is tossed to determine which team starts the football game. "Brought to you by probability"

GOAL 1: C GOAL 2: GOAL 3: PS:

423- 6 GENERAL MATHPITAL: BISECTOMY 40490 STU 3:12
An angle must be bisected, and Reg, the doctor, illustrates the procedure on a diagram. He marks off the construction using compass, straight edge, and marker.

GOAL 1: A C GOAL 2: A1 B4 C1b C1e C2a D3 GOAL 3: G6 PS: X

423- 7 CAREERS PSA #1 (BOTANIST) 43280 LAF 0:32
The song says "In every occupation, wherever you may go, you gotta know math" while the pictures show a botanist, sculptor, pediatrician, architect, hat maker, basketball coach & recording technician.

GOAL 1: A C GOAL 2: GOAL 3: PS:

423- 8 MATHNET-CASE OF THE POCONOS PARADISE-3 40093 NET 12:54
George makes a chart of the burglary facts to find patterns. All victims were away & Pat says a mail house could know this. They check the one used & learn how computers sort info for its clients.

GOAL 1: GOAL 2: A1 B1 B3 C1c C3a C3b C4a C4b GOAL 3: A5 F6 PS: X

423- 9 SHORT CLOSE 44300 BUM 0:46

GOAL 1: GOAL 2: GOAL 3: PS:

424- 1 SHOW OPEN 44150 BUM 0:38

GOAL 1: GOAL 2: GOAL 3: PS:

424- 2 DIRK NIBLICK: DT'S MAP (PART I) 40011 ANI 5:19
An alien asks Beasley to help him color a map of the US so that no two adjoining states are the same color. They fail with 3 crayons, but succeed with four.

GOAL 1: B GOAL 2: A1 A2 A3 B1 B6 C1a D2 D4 GOAL 3: A3 B1 B5 G7 PS: X

424- 3 YOU CALL THE ANGLE 3 -- 180 (U RAMP) 30700 LAF 0:54
A skateboarder demonstrates a turn and the viewer is asked to determine the angle of rotation.

GOAL 1: C GOAL 2: A1 B1 C1b C2a GOAL 3: G2 PS: X

424- 4 DIRK NIBLICK: DT'S MAP (PART II) 40012 PAR 5:15

GOAL 1: GOAL 2: GOAL 3: PS:

424- 5 DICK & VERN: NO MATH IN THAT 40620 ANI 0:57
Dick and Vern comment that math is more than arithmetic.

GOAL 1: GOAL 2: GOAL 3: PS:

424- 6 MATHNET-CASE OF THE POCONOS PARADISE-4 40094 NET 14:53
The mail house owner shows Pat & George more info about the burglary victims. She says there's an out-of-town event that evening. They stake out the apartment of 3 respondees, and catch 3 burglars.

GOAL 1: GOAL 2: A1 B1 B3 C1c C3a C4b GOAL 3: A5 F6 PS: X

424- 7 SHORT CLOSE 44300 BUM 0:46

GOAL 1: GOAL 2: GOAL 3: PS:

425- 1 SHOW OPEN 44150 BUM 0:38

GOAL 1: GOAL 2: GOAL 3: PS:

425- 2 MATHMAN: MATH MYTHS #5 43270 ANI 2:41
Mathman has to say true or false for the following: Math is no more than applying rules, There's only one way to solve a math problem, If you don't find an answer right away, quit.

GOAL 1: GOAL 2: C1b C1c C2c GOAL 3: PS:

425- 3 DICK & VERN: "CLOSE CALL" LEAD-IN 40600 ANI 0:33
Dick and Vern announce the "Close Call" game show, commenting that estimating is not the same as guessing.

GOAL 1: GOAL 2: GOAL 3: PS:

425- 4 CLOSE CALL #1 40290 GAM 9:12
Students compete against each other to get the closest estimate to: Seats in Nassau Coliseum, Beads on hippie necklace, Sequins on Elvis' jacket (Rock n' Roll theme)

GOAL 1: C GOAL 2: A1 B2 C1b C1e D1 GOAL 3: C2 C3 G4 PS: X

425- 5 MATHNET-CASE OF THE POCONOS PARADISE-5 40095 NET 13:20
The identity of the burglary boss remains a mystery. The mail house owner claims her computer was entered by phone, & gives the number of the hacker. The Mathnetters find she herself is the culprit.

GOAL 1: GOAL 2: A1 B3 C3a GOAL 3: PS: X

425- 6 CREDITS & COPYRIGHT 44340 BUM 1:36

GOAL 1: GOAL 2: GOAL 3: PS:

425- 7 LONG FRIDAY CLOSE 44320 BUM 0:49

GOAL 1: GOAL 2: GOAL 3: PS:

426- 1 SHOW OPEN 44150 BUM 0:38

GOAL 1: GOAL 2: GOAL 3: PS:

426- 2 MATHCOURT 1: DECIMAL POINT 40370 STU 3:51
The prosecutor has not used a decimal point when adding prices so the total cost that he demands is incorrect. Defendant rewrites using decimal points.

GOAL 1: C GOAL 2: A1 B1 B4 C2a D1 GOAL 3: A4 B1 PS: X

426- 3 INSERT: DRACULA 3 43033 BUM 0:06
"I love math. It's a subject you can really sink your teeth into."

GOAL 1: C GOAL 2: GOAL 3: PS:

426- 4 SQUARE ONE CHALLENGE # 6 40270 GAM 9:14
Two students try to determine whether each of two cast members is bluffing or telling the truth when answering the questions: Candy Bar Pieces, Transylvania Lottery, Wheels/Pulleys

GOAL 1: GOAL 2: GOAL 3: PS:

426- 4 SQUARE ONE CHALLENGE # 6 QUESTION 1 40271 SOS
Given two candy bars of the same size, cut one into eighths; cut the other into halves, and one of its halves into five equal pieces. Which is bigger, one of those pieces or one of the eighths?

GOAL 1: C GOAL 2: A1 B4 C1e C2a C2c C4a GOAL 3: A3 D1 PS: X

426- 4 SQUARE ONE CHALLENGE # 6 QUESTION 2 40272 SOS
Which is worth more--one million thousand gold zlotys or one thousand million gold zlotys?

GOAL 1: C GOAL 2: A1 B4 C2a C3a D4 GOAL 3: A2 B1 D1 PS: X

426- 4 SQUARE ONE CHALLENGE # 6 QUESTION 3 40273 SOS
A machine has 3 wheels of different sizes, connected by a belt. Wheels A, B, and C have diameters of 10, 15, and 20 inches, respectively. If you turn A 8 times, how many times will B turn? And C?

GOAL 1: C GOAL 2: A1 B1 B4 C1e C2a GOAL 3: B5 G6 PS: X

426- 5 IF IT'S OUT THERE: CHEF (POPOVER) 43080 LAF 1:17
A home cook follows the instructions of a tv chef, but uses a tablespoon of baking powder instead of a teaspoon, so his popover comes out unusually large.

GOAL 1: A C GOAL 2: GOAL 3: C1 PS:

426- 6 OLD PHILOSOPHER #6: PERCENTS 40820 STU 2:32
The Old Philosopher tells a story about deciding which store offers a better deal on hockey pucks; one sells pucks at 40 percent off of $5 and the other sells them at 25 percent off of $4.

GOAL 1: C GOAL 2: A1 A2 B3 B4 C2a GOAL 3: A5 PS: X

426- 7 MATHNET-CASE OF THE PURLOINED POLICIES-1 40081 NET 9:54
An insurance company has an unusual number of payouts on cars it insured. With Stanley, a student, Pat & George see the company president, who gives them info on diskette. They meet Johnny Dollar.

GOAL 1: GOAL 2: A1 B2 B3 C3a GOAL 3: A5 B4 C1 PS: X

426- 8 LONG CLOSE 44310 BUM 0:58

GOAL 1: GOAL 2: GOAL 3: PS:

427- 1 SHOW OPEN 44150 BUM 0:38

GOAL 1: GOAL 2: GOAL 3: PS:

427- 2 WANNA BE 30140 SON 2:24
This is a song which points out that whatever one wants to be, one needs to know math.

GOAL 1: A C GOAL 2: GOAL 3: PS:

427- 3 DIRK NIBLICK: GOLDEN YEARS (PART I) 40021 ANI 8:00
Beasley has money to invest, Dirk discusses interest. After seeing companies with a broker, Beasley chooses to invest in the one that pays 300% of its profits instead of 10%.But what are its profits?

GOAL 1: A GOAL 2: A1 B1 B2 B3 B4 C1c C2a D1 GOAL 3: A5 B1 B4 F6 G6 PS: X

427- 4 BIG NUMBERS - MILLION/ BILLION 30460 ANI 0:41
This segment compares the length of time it takes a clock to tick off one million and then one billion seconds.

GOAL 1: GOAL 2: GOAL 3: A2 B2 B4 PS:

427- 5 DIRK NIBLICK: GOLDEN YEARS (PART II) 40022 PAR 2:47

GOAL 1: GOAL 2: GOAL 3: PS:

427- 6 PERSON ON THE STREET: $10 A DAY 30970 LAF 0:52
People on the street are asked: If you spend $10 day, it will take about 3 1/2 months to spend $1000. How long will it take to spend one million? One billion?

GOAL 1: B C GOAL 2: A1 B2 GOAL 3: A1 B4 D1 PS: X

427- 7 MATHNET-CASE OF THE PURLOINED POLICIES-2 40082 NET 12:24
Pat and George see the insurance data on computer and in charts and graphs. They notice that all payouts were for cars reported stolen and not found, and focus on the Greenwich Village office.

GOAL 1: A GOAL 2: A1 B1 B3 C1c C1d C3a C3b C3c GOAL 3: A5 B1 B5 F2 F6 PS: X

427- 8 LONG CLOSE 44310 BUM 0:58

GOAL 1: GOAL 2: GOAL 3: PS:

428- 1 SHOW OPEN 44150 BUM 0:38

GOAL 1: GOAL 2: GOAL 3: PS:

428- 2 CLOSE CALL #6 40340 GAM 8:14
Students compete against each other trying to get the closest estimate to: Height of Empire State Building (yards), Steps of Frankenstein on curved path, Bites in a year (Monster theme)

GOAL 1: C GOAL 2: A1 B2 C1a C1c C1e D1 GOAL 3: C1 C2 C3 F6 G4 PS: X

428- 3 IF IT'S OUT THERE: DIRECTOR 43060 LAF 1:05
A movie actress must act afraid when she sees a version of King Kong, but she laughs to see how small he really is. With a lamp, the directors project his shadow onto the wall & it looms much larger.

GOAL 1: A C GOAL 2: A1 C1e C4a GOAL 3: G4 G5 PS: X

428- 4 MATHCOURT 7: DRIVING TIME 40430 STU 4:12
The prosecutor says the defendant is trying to overcharge him for a trip of 2087 miles, which should have taken 40 hours. The defendant explains that it took 124 hours, including stop-overs.

GOAL 1: C GOAL 2: A1 B1 B2 B3 B4 C1a C2a C4a D1 GOAL 3: B1 B4 B5 PS: X

428- 5 MATHMAN: MATH MYTHS #1 40530 ANI 1:57
Mathman has to determine whether the following statements are true or false: Arithmetic is based on addition, subtraction, multiplication, & division, Math and arithmetic are the same thing.

GOAL 1: GOAL 2: GOAL 3: PS:

428- 6 MATHNET-CASE OF THE PURLOINED POLICIES-3 40083 NET 12:04
Pat & George find that all of the expensive stolen cars insured at the Greenwich Village office were handled by Caspar Floosh. When they interview him he has no info. for them. They are suspicious.

GOAL 1: GOAL 2: A1 B1 B2 B3 C1c C3a C3c GOAL 3: A5 B4 F6 PS: X

428- 7 SHORT CLOSE 44300 BUM 0:46

GOAL 1: GOAL 2: GOAL 3: PS:

429- 1 SHOW OPEN 44150 BUM 0:38

GOAL 1: GOAL 2: GOAL 3: PS:

429- 2 PATTERNS 40470 SON 3:35
In this fast-paced song, "Weird Al" Yankovic sings about the repeating patterns that he sees everywhere: in his house, on his clothing, in music, in dance, in nature, etc.

GOAL 1: B C GOAL 2: GOAL 3: G2 G3 G6 PS:

429- 3 BUT WHO'S COUNTING?: SMALLEST SUM 1/5 43130 GAM 3:34
Players arrange 4 randomly chosen numbers on their boards to form the smallest sum of 2 fractions. To play, they apply understanding of probability and fractions.

GOAL 1: A C GOAL 2: A1 B2 B4 C1b C2a C2c GOAL 3: A3 B4 D1 F4 PS: X

429- 4 DICK & VERN: PHONER PENCIL & PAPER 44090 ANI 1:07
Dick and Vern tell the viewer to get pencil and paper so they can learn from the "Phoner" which is coming up next.

GOAL 1: GOAL 2: GOAL 3: PS:

429- 5 PHONER 7: GUESS THE ORIGINAL NUMBER 43230 STU 2:16
Beverly, a nurse, has a one-sided telephone conversation in which she chooses a number and performs a series of operations that give her a result that allows the phoner to guess her original number.

GOAL 1: B C GOAL 2: GOAL 3: B1 D2 PS:

429- 6 DIVISION OF: PARABOLA 40780 ANI 0:35
A golf ball is hit, and its path has the shape of a parabola. The sports scene is replayed in slow motion. "Brought to you by geometry"

GOAL 1: C GOAL 2: GOAL 3: G6 PS:

429- 7 MATHNET-CASE OF THE PURLOINED POLICIES-4 40084 NET 16:03
Stanley notices that the handwriting on the backs of the payout checks is similar for all claimees. It looks like the writing on J. Dollar's reports. When Pat tries to trap Dollar, an accident occurs.

GOAL 1: GOAL 2: A1 B1 B2 B3 B4 C1c C3a C4a C4b GOAL 3: B1 B4 F6 PS: X

429- 8 LONG CLOSE 44310 BUM 0:58

GOAL 1: GOAL 2: GOAL 3: PS:

430- 1 SHOW OPEN 44150 BUM 0:38

GOAL 1: GOAL 2: GOAL 3: PS:

430- 2 MATHMAN: MATH MYTHS #4 43260 ANI 1:47
Mathman has to say whether the following statements are true or false: You need to be fast to be good at math, You need to be a brainiac to be good at math.

GOAL 1: C GOAL 2: GOAL 3: PS:

430- 3 INSERT: HOT DOG VENDOR-STATISTICS 43024 BUM 0:12
"Mathematics is so much more than just arithmetic, yeah, do you know that it also involves statistics. Hey, check that out, oh you're gonna love it."

GOAL 1: GOAL 2: GOAL 3: PS:

430- 4 PIECE OF THE PIE #6AR 40181 GAM 6:56
Two teams guess top answers to the survey question "Name something black & white." Team earning greater percentage guesses top answer to: magician's tool, snake, music that's not rock.

GOAL 1: A C GOAL 2: A1 B3 B6 C3b D2 GOAL 3: A5 B1 D1 F6 PS: X

430- 5 SQUARE ONE PUZZLER: CALENDAR 21140 ANI 0:58
A short animation puzzler: If today is Wednesday, what day of the week will it be in twenty days?

GOAL 1: GOAL 2: A1 B4 C1b C1e C2a C2c GOAL 3: B3 PS: X

430- 6 MATHNET-CASE OF THE PURLOINED POLICIES-5 40085 NET 16:07
Since Dollar has drowned in the accident, his life insurance pays one million dollars to his mother. When Pat and George deliver it, they find Johnny in disguise.

GOAL 1: GOAL 2: A1 B1 B2 B3 C3a D4 GOAL 3: B1 B4 PS: X

430- 7 CREDITS & COPYRIGHT 44340 BUM 1:36

GOAL 1: GOAL 2: GOAL 3: PS:

430- 8 SHORT FRIDAY CLOSE 44330 BUM 0:37

GOAL 1: GOAL 2: GOAL 3: PS:

431- 1 SHOW OPEN 44150 BUM 0:38

GOAL 1: GOAL 2: GOAL 3: PS:

431- 2 SHAPE UP 15310 SON 2:10
Punning on gemetric terms, this music video illustrates geometric shapes in this song about betrayed love.

GOAL 1: C GOAL 2: GOAL 3: G6 PS:

431- 3 SQUARE ONE CHALLENGE # 5 40260 GAM 8:48
Two students try to determine whether each of two cast members is bluffing or telling the truth when answering the questions: Tables in Tunnel, Wacky Boxes, Darts

GOAL 1: GOAL 2: GOAL 3: PS:

431- 3 SQUARE ONE CHALLENGE # 5 QUESTION 1 40261 SOS
A banquet is being held in a tunnel, so the tables must be placed end-to-end. If four people can fit at a single table (one on each side), then how many can be seated at a row of 100 tables?

GOAL 1: C GOAL 2: A1 B4 C1b C1e GOAL 3: E3 G6 PS: X

431- 3 SQUARE ONE CHALLENGE # 5 QUESTION 2 40262 SOS
What could the given box design look like when it's folded up?

GOAL 1: C GOAL 2: A1 B4 C1b C1e D2 GOAL 3: G5 G6 PS: X

431- 3 SQUARE ONE CHALLENGE # 5 QUESTION 3 40263 SOS
A dartboard has rings worth 5, 7, and 10 points. Can Ironwrist McDougal possibly get a score of exactly 28 by hitting the target with 5 darts?

GOAL 1: C GOAL 2: A1 B4 B6 C1e C2c GOAL 3: B1 D1 PS: X

431- 4 OLD PHILOSOPHER #7: AVERAGES 40830 STU 2:23
The Old Philosopher tells a story about figuring out the average number of laps swum in a day, given data for 5 days.

GOAL 1: C GOAL 2: A1 A3 B1 B4 C2c GOAL 3: F2 PS: X

431- 5 MATHNET-CASE OF THE UNNATURAL-1 40121 NET 13:44
A young girl named Babs explains a number sequence game she plays with her friend Lefty, a baseball player. Enjoying a baseball comeback, he has started to send sequences that break their game rules.

GOAL 1: B C GOAL 2: A1 B1 B4 C1b C2c C3a D3 GOAL 3: A3 A4 B3 D2 F3 PS: X

431- 6 LONG CLOSE 44310 BUM 0:58

GOAL 1: GOAL 2: GOAL 3: PS:

432- 1 SHOW OPEN 44150 BUM 0:38

GOAL 1: GOAL 2: GOAL 3: PS:

432- 2 DIRK NIBLICK: LONG BRIE TRAIL (PART 1) 30041 ANI 6:23
Dirk goes west and finds that Mr. Manhattan is stealing from his own money shipping business by claiming that a package of 1 dollar bills 3 times as large as a package of 1000 bills holds $1000000.

GOAL 1: A GOAL 2: A1 B1 B2 B4 C1e C2a C4a D1 GOAL 3: A2 B5 C2 C3 D1 PS: X

432- 3 YOU CALL THE ANGLE 4 -- 540 30710 LAF 0:56
A skateboarder demonstrates a turn and a half, and the viewer is asked to determine the angle of rotation.

GOAL 1: C GOAL 2: A1 B1 C1b C2a GOAL 3: G2 PS: X

432- 4 DIRK NIBLICK: LONG BRIE TRAIL (PART 2) 30042 PAR 3:29

GOAL 1: GOAL 2: GOAL 3: PS:

432- 5 INSERT: JULIE BROWN-MENTAL TOOL-1C 40205 BUM 0:11
"This is downtown Julie Brown with a word of advice for you. Mathematics, it's a mental tool, use your head, it's supercool." (close-up of yellow/green background)

GOAL 1: A GOAL 2: GOAL 3: G6 PS:

432- 6 MATHNET-CASE OF THE UNNATURAL-2 40122 NET 16:16
Watching Lefty practice, Pat & George notice his trainer, Dr. Steenbrenner, with talent scouts. A radar gun tells how fast Lefty pitches. Babs sees that Lefty didn't leave a number sequence for her.

GOAL 1: GOAL 2: A1 GOAL 3: B3 B5 D2 F3 PS: X

432- 7 SHORT CLOSE 44300 BUM 0:46

GOAL 1: GOAL 2: GOAL 3: PS:

433- 1 SHOW OPEN 44150 BUM 0:38

GOAL 1: GOAL 2: GOAL 3: PS:

433- 2 GENERAL MATHPITAL: ASYMMETRIOSIS 40520 STU 4:17
In a model of an asymmetrical patient, the doctors try rearranging the pieces in various ways that would make it symmetrical.

GOAL 1: A B C GOAL 2: A1 B4 C1b C1e C2a D1 D2 D3 GOAL 3: G2 PS: X

433- 3 IF IT'S OUT THERE: DIRECTOR 43060 LAF 1:05
A movie actress must act afraid when she sees a version of King Kong, but she laughs to see how small he really is. With a lamp, the directors project his shadow onto the wall & it looms much larger.

GOAL 1: A C GOAL 2: A1 C1e C4a GOAL 3: G4 G5 PS: X

433- 4 PIECE OF THE PIE #1 40130 GAM 6:57
Two teams guess top answers to the survey question "Name a food that is messy to eat." Team earning greater percentage guesses top answer to: noisy animal, cookie ingredient, gardener's tool.

GOAL 1: A C GOAL 2: A1 B3 B6 C3b D2 GOAL 3: A5 B1 D1 F6 PS: X

433- 5 MATHNET-CASE OF THE UNNATURAL-3 40123 NET 14:49
Pat & George visit Steenbrenner's old coach for info. At headquarters, they suggest that Bab send a message in alphanumeric code to Lefty. George reads in the paper that Lefty is to be auctioned off.

GOAL 1: B C GOAL 2: B1 B3 C3a C4a D3 GOAL 3: PS: X

433- 6 LONG CLOSE 44310 BUM 0:58

GOAL 1: GOAL 2: GOAL 3: PS:

434- 1 SHOW OPEN 44150 BUM 0:38

GOAL 1: GOAL 2: GOAL 3: PS:

434- 2 NEIGHBORHOOD SUPERSPY 12150 SON 3:50
A super spy sings about creating a code that assigns a number to each letter of the alphabet. According to this code, a sequence of numbers would read as a word.

GOAL 1: A C GOAL 2: GOAL 3: D2 D1 PS:

434- 3 MATHMAN: MATH MYTHS #2 43240 ANI 2:02
Mathman has to say whether the following statements are true or false: You need math only in jobs where you handle money, You don't use math outside of school.

GOAL 1: A GOAL 2: GOAL 3: PS:

434- 4 PHONER 2: 2-DIGIT NUM. LESS THAN 10 43180 STU 2:44
Cris has a one-sided telephone conversation in which he chooses a 2-digit number less than 10 and performs a series of operations that always return him to his original number.

GOAL 1: B C GOAL 2: GOAL 3: B1 D2 PS:

434- 5 DIVISION OF: LOTTERY 40700 ANI 0:45
Balls pop up to determine the winning lottery number. "Brought to you by probability"

GOAL 1: GOAL 2: GOAL 3: PS:

434- 6 MATHNET-CASE OF THE UNNATURAL-4 40124 NET 17:59
Babs has sent a coded message to Lefty, and the Mathnetters examine his response. A previous note says "captive". Pat thinks the new one says he has been kidnapped, but they can't decode it all.

GOAL 1: A C GOAL 2: A1 B1 B3 B6 C1c C4a C4b D1 GOAL 3: C2 D2 PS: X

434- 7 SHORT CLOSE 44300 BUM 0:46

GOAL 1: GOAL 2: GOAL 3: PS:

435- 1 SHOW OPEN 44150 BUM 0:38

GOAL 1: GOAL 2: GOAL 3: PS:

435- 2 YOU CALL THE ANGLE 2 -- 180 (JUMP RAMP) 30690 LAF 0:43
A skateboarder demonstrates a turn and the viewer is asked to determine the angle of rotation.

GOAL 1: C GOAL 2: A1 B1 C1b C2a GOAL 3: G2 PS: X

435- 3 CLOSE CALL #5 40330 GAM 7:46
Students compete against each other trying to get the closest estimate to: Scales on fish, Height of horse (in hands), Length of python (cm) (Animal theme)

GOAL 1: C GOAL 2: A1 B2 C1b C1e D1 GOAL 3: C1 C2 C3 PS: X

435- 4 MATHNET-CASE OF THE UNNATURAL-5 40125 NET 17:30
Babs realizes that the numbers in the last part of Lefty's note are an address. Using a city map, the Mathnetters find Lefty. They prove that the ball player Steenbrenner is auctioning is an android.

GOAL 1: GOAL 2: A1 B1 B3 B6 C1a C2c C3a C4a C4 GOAL 3: B3 D1 D2 F6 PS: X

435- 5 CREDITS & COPYRIGHT 44340 BUM 1:36

GOAL 1: GOAL 2: GOAL 3: PS:

435- 6 SHORT FRIDAY CLOSE 44330 BUM 0:37

GOAL 1: GOAL 2: GOAL 3: PS:

436- 1 SHOW OPEN 44150 BUM 0:38

GOAL 1: GOAL 2: GOAL 3: PS:

436- 2 GROWN-UPS: ED KOCH 40541 STU 1:12
A child actor plays Ed Koch, before he was mayor of New York, explaining why he will need math in the future.

GOAL 1: A C GOAL 2: GOAL 3: PS:

436- 3 DICK & VERN: PENCIL & PAPER QUIZ SHOW 44100 ANI 0:42
Dick and Vern tell the viewer to get pencil and paper so they can play along with "But Who's Counting?"

GOAL 1: GOAL 2: GOAL 3: PS:

436- 4 BUT WHO'S COUNTING?: LARGEST SUM CASTOUT 43160 GAM 2:58
Players arrange 4 randomly chosen numbers on their boards to form the largest sum of 2 fractions. To play, they apply understanding of probability and fractions. (with final castout)

GOAL 1: A C GOAL 2: A1 B1 B4 C1b C2c GOAL 3: A3 D1 F4 PS: X

436- 5 DIVISION OF: COMBINATORICS 40730 ANI 0:35
Different mouths, noses, and eyes can be combined to make a variety of faces. Combinatorics tells how many faces are possible with the given features.

GOAL 1: GOAL 2: A1 B4 C1e GOAL 3: E3 PS: X

436- 6 THAT'S MATH 40560 SON 3:30
Hines sings about the mathematics of a pizza bill, baseball statistics, hitting a target, and dancing.

GOAL 1: A C GOAL 2: GOAL 3: A5 B1 F1 F2 F4 PS:

436- 7 DIVISION OF: PARABOLA 40780 ANI 0:35
A golf ball is hit, and its path has the shape of a parabola. The sports scene is replayed in slow motion. "Brought to you by geometry"

GOAL 1: C GOAL 2: GOAL 3: G6 PS:

436- 8 MATHNET-DESPAIR IN MONTEREY BAY-1 40101 NET 17:26
George watches the rain. Pat & George get called to Monterey, CA, to protect the Despair Diamond from theft by Archie Leach. Before their flight, George discusses headwinds with the pilot.

GOAL 1: GOAL 2: A1 B2 B4 C1b GOAL 3: B1 B4 C1 G2 PS: X

436- 9 LONG CLOSE 44310 BUM 0:58

GOAL 1: GOAL 2: GOAL 3: PS:

437- 1 SHOW OPEN 44150 BUM 0:38

GOAL 1: GOAL 2: GOAL 3: PS:

437- 2 INFINITY - THERE IS NO END 31110 SON 3:27
This song uses several examples of large numbers to illustrate that infinity is not a large number. Several patterns for building sequences of whole numbers are used to suggest infinite sequences.

GOAL 1: B GOAL 2: GOAL 3: A1 B2 D1 D2 PS:

437- 3 MATHMAN: MATH MYTHS #3 43250 ANI 2:03
Mathman has to say whether these are true or false: If you wear glasses you're better at math than if you don't, Tall people are better at math than short ones, Curly-haired people from Cleveland...

GOAL 1: C GOAL 2: GOAL 3: PS:

437- 4 PHONER 5: CURRENT YEAR 43210 STU 4:16
Larry, as a burglar, has a one-sided telephone conversation in which he chooses a number and performs a series of operations that yield the number of the current year as a result.

GOAL 1: B C GOAL 2: GOAL 3: B1 D2 PS:

437- 5 DIVISION OF: APPLE ESTIMATION 40760 ANI 0:27
To reach an apple in a tree, a man estimates the height in terms of its relation to his own height. He brings the appropriate number of friends to stand on each other to reach it and they pick it.

GOAL 1: A C GOAL 2: A1 B2 C1e C2c GOAL 3: C1 C3 PS: X

437- 6 MATHNET-DESPAIR IN MONTEREY BAY-2 40102 NET 16:49
The diamond is stolen from a preview benefit party, and Archie Leach is seen escaping from the premises in a boat, which capsizes. Pat & George find the capsize location by triangulation, & dive down.

GOAL 1: A GOAL 2: A1 A3 B3 B4 C1a C2c C3b GOAL 3: G6 PS: X

437- 7 LONG CLOSE 44310 BUM 0:58

GOAL 1: GOAL 2: GOAL 3: PS:

438- 1 SHOW OPEN 44150 BUM 0:38

GOAL 1: GOAL 2: GOAL 3: PS:

438- 2 GENERAL MATHPITAL: DECIMAL POINT 40480 STU 3:12
In a delicate and important operation, doctors show that the location of a decimal point has a significant effect on the magnitude of the number that a numeral represents.

GOAL 1: C GOAL 2: A1 B3 C2a D2 GOAL 3: A4 PS: X

438- 3 YOU CALL THE ANGLE 3 -- 180 (U RAMP) 30700 LAF 0:54
A skateboarder demonstrates a turn and the viewer is asked to determine the angle of rotation.

GOAL 1: C GOAL 2: A1 B1 C1b C2a GOAL 3: G2 PS: X

438- 4 COUNT THE WAYS 40210 SON 3:33
The Judds sing about how one of Wynonna's admirers expresses his affection in mathematical ways, telling her how many times his heart beats for her each minute, each hour, etc.

GOAL 1: C GOAL 2: GOAL 3: B5 PS:

438- 5 MATHNET-DESPAIR IN MONTEREY BAY-3 40103 NET 19:30
Pat & George dive where the boat capsized but don't see the diamond. They realize they need to take the current into account, so they gather data, recalculate, perform an experiment, and dive again.

GOAL 1: A GOAL 2: A1 B1 B3 B4 C1a C1e C2c C3b C4 GOAL 3: B1 B5 C1 C3 G6 PS: X

438- 6 LONG CLOSE 44310 BUM 0:58

GOAL 1: GOAL 2: GOAL 3: PS:

439- 1 SHOW OPEN 44150 BUM 0:38

GOAL 1: GOAL 2: GOAL 3: PS:

439- 2 INSERT: JULIE BROWN-MENTAL TOOL-1A 40203 BUM 0:11
"This is Downtown Julie Brown with a word of advice for you. Mathematics, it's a mental tool, use your head, it's supercool." (green/blue "nightclub" background)

GOAL 1: A GOAL 2: GOAL 3: PS:

439- 3 SQUARE ONE CHALLENGE # 1 40220 GAM 9:13
Two students try to determine whether each of two cast members is bluffing or telling the truth when answering the questions: F cut-outs, Minnesota Munchkins, Popcorn and Gum

GOAL 1: GOAL 2: GOAL 3: PS:

439- 3 SQUARE ONE CHALLENGE # 1 QUESTION 1 40221 SOS
A paper is folded in four and an "F" cut out of it. What will it look like when it is unfolded?

GOAL 1: C GOAL 2: A1 B4 C1e GOAL 3: G2 PS: X

439- 3 SQUARE ONE CHALLENGE # 1 QUESTION 2 40222 SOS
What's the average height of the members of the Minnesota Munchkins team?

GOAL 1: C GOAL 2: A1 B4 C1b C1e C2b GOAL 3: F2 F6 PS: X

439- 3 SQUARE ONE CHALLENGE # 1 QUESTION 3 40223 SOS
Popcorn and gum cost 50 cents together, and one costs 10 cents more than the other. How much could the popcorn cost alone?

GOAL 1: C GOAL 2: A1 B4 C2c D2 D3 GOAL 3: B1 D3 PS: X

439- 4 LESS THAN ZERO 14150 SON 2:04
This song presents a diving, dance, skating, and hammer-throw competition to show arithmetic realizations of negative numbers.

GOAL 1: C GOAL 2: GOAL 3: A6 D1 PS:

439- 5 MATHNLT-DESPAIR IN MONTEREY BAY-4 40104 NET 15:45
Pat & George get approximate underwater currents for the accident time, & adjust their dive location. They find other objects from the boat & time them as they drop in a pool. Archie's shoe turns up.

GOAL 1: A GOAL 2: A1 B2 B3 B4 C1a C1c C1e C2c C3 GOAL 3: B5 C1 F5 F6 G6 PS: X

439- 6 LONG CLOSE 44310 BUM 0:58

GOAL 1: GOAL 2: GOAL 3: PS:

440- 1 SHOW OPEN 44150 BUM 0:38

GOAL 1: GOAL 2: GOAL 3: PS:

440- 2 IF IT'S OUT THERE: SHOPPER (WATERMELON) 43050 LAF 1:02
Watermelons cost $1.00 each, so with 75 cents a customer gets 3/4 of a watermelon. The remaining 1/4 watermelon goes to a young girl who gives a quarter to the resourceful cashier.

GOAL 1: A C GOAL 2: A1 B1 B2 B4 C1e C4a D4 GOAL 3: A3 B5 C2 C3 PS: X

440- 3 PIECE OF THE PIE #4(BU) 40550 GAM 7:02
Two teams guess top answers to the survey question "Name something to take camping." Team earning greater percentage guesses top answer to: thing in a pocketbook, food at park, zoo animal.

GOAL 1: A C GOAL 2: A1 B6 C3b D2 GOAL 3: A5 B1 D1 F6 PS: X

440- 4 IF IT'S OUT THERE: CHEF (POPOVER) 43080 LAF 1:17
A home cook follows the instructions of a tv chef, but uses a tablespoon of baking powder instead of a teaspoon, so his popover comes out unusually large.

GOAL 1: A C GOAL 2: GOAL 3: C1 PS:

440- 5 MATHNET-DESPAIR IN MONTEREY BAY-5 40105 NET 16:25
Pat & George hypothesize that Archie drifted seaward with the boat before the diamond dropped, but this means that it fell into very deep water. They send a remotely operated vehicle down to search.

GOAL 1: GOAL 2: B1 B2 B3 B4 C1a C1c C2c C4a C4 GOAL 3: C1 C3 F5 F6 G6 PS: X

440- 6 CREDITS & COPYRIGHT 44340 BUM 1:36

GOAL 1: GOAL 2: GOAL 3: PS:

440- 7 LONG FRIDAY CLOSE 44320 BUM 0:49

GOAL 1: GOAL 2: GOAL 3: PS: